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7 **EIGHTH AMENDED**
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9 **SITE CERTIFICATE**
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11 **FOR THE**
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13 **PORT WESTWARD GENERATING PROJECT**
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**EIGHTH AMENDED
SITE CERTIFICATE
FOR THE
PORT WESTWARD GENERATING PROJECT**

A. INTRODUCTION

This site certificate for the Port Westward Generating Project ("PWGP or Project") is issued and executed in the manner provided by ORS Chapter 469, by and between the State of Oregon ("State"), acting by and through its Energy Facility Siting Council ("Council"), and the Portland General Electric Company ("PGE" or "Certificate Holder").

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, which by this reference are incorporated herein: (a) the Council's Final Order in the Matter of the Application for a Site Certificate for the Port Westward Generating Project, which the Council granted on November 8, 2002; (b) the Council's Final Order in the Matter of the Site Certificate for the Port Westward Generating Project Request for Amendment No. One, which the Council granted on December 5, 2003; (c) the Council's Final Order in the Matter of the Site Certificate for the Port Westward Generating Project Request for Amendment No. Two, which the Council granted on September 24, 2004; (d) the Council's Final Order in the Matter of the Site Certificate for the Port Westward Generating Project Request for Amendment No. Three, which the Council granted on January 28, 2005; and (e) the Council's Final Order in the Matter of the Fourth Request to Amend the Site Certificate for the Port Westward Generating Project, which the Council granted on May 19, 2006; (f) the Council's Final Order in the Matter of the Fifth Request to Amend the Site Certificate for the Port Westward Generating Project, which the Council granted on September 29, 2006, (g) the Council's Final Order in the Matter of the Sixth Request to Amend the Site Certificate for the Port Westward Generating Project, which the Council granted on March 27, 2009 (h) the Council's Final Order in the Matter of the Seventh Request to Amend the Site Certificate for the Port Westward Generating Project, which the Council granted on March 12, 2010; and (i) the Council's Final Order in the Matter of the Eighth Request to Amend the Site Certificate for the Port Westward Generating Project, which the council granted on August 19, 2011 [Amendments No. 1, 2, 3, 4, 5, 6, 7 & 8]. Collectively, we refer to the Final Orders listed in (a) through (i) as "the Orders".

In interpreting this site certificate, any ambiguity shall be clarified by reference to, and in the following priority: this Site Certificate, the record of the proceedings which led to the Orders, and the Application for a Site Certificate for the Port Westward Generating Project. As used in this Site Certificate, the "application for site certificate" or the "ASC" includes: (a) the Application for a Site Certificate for the Port Westward Generating Project, which the Department of Energy ("Department") filed on April 11, 2002; (b) the Certificate Holder's Request for First Amendment to the Site Certificate for the Port Westward Generating Project, which the Council received on October 25, 2003; (c) the

1 Certificate Holder's Request for Second Amendment to the Site Certificate for the Port
2 Westward Generating Project, which the Council received on May 7, 2004; (d) the
3 Certificate Holder's Request for Third Amendment to the Site Certificate for the Port
4 Westward Generating Project, which the Council received on November 3, 2004, (e) the
5 Certificate Holder's Request for Fourth Amendment to the Site Certificate for the Port
6 Westward Generating Project, which the Council received on January 18, 2006, (f) the
7 Certificate Holder's Request for Fifth Amendment to the Site Certificate for the Port
8 Westward Generating Project, which the Council received on July 18, 2006, (g) the
9 Certificate Holder's Request for Sixth Amendment to the Site Certificate for the Port
10 Westward Generating Project, which the Council received on November 7, 2008, (h) the
11 Certificate Holder's Request for Seventh Amendment to the Site Certificate for the Port
12 Westward Generating Project, which the Council received on September 18, 2009, and (i)
13 the Certificate Holder's Request for the Eighth Amendment to the Site Certificate for
14 Port Westward Generating Project, which the Council received on November 4, 2010.
15 [Amendments 1 through 8].
16

17 The terms used in this Site Certificate shall have the same meaning set forth in ORS
18 469.300, 469.503(2)(e) and Oregon Administrative Rules (OAR) 345-001-0010, except
19 where otherwise stated or where the context clearly indicates otherwise.
20

21 **B. SITE CERTIFICATION**

- 22 1. To the extent authorized by State law and subject to the conditions set forth
23 herein, the State approves and authorizes the Certificate Holder to construct,
24 operate and retire a natural gas-fired, combined cycle combustion turbine energy
25 facility, together with certain related or supporting facilities, at the site as
26 described in Section C of this Site Certificate, near Clatskanie, Oregon. ORS
27 469.401(1).
28
- 29 2. This site certificate shall be effective (1) until it is terminated pursuant to OAR
30 345-027-0110 or the rules in effect on the date that termination is sought, or (2)
31 until the Site Certificate is revoked pursuant to ORS 469.440 and OAR 345-029-
32 0100 or the statutes and rules in effect on the date that revocation is ordered. ORS
33 469.401(1).
34
- 35 3. This Site Certificate does not address, and is not binding with respect to, matters
36 that were not addressed in the Council's Final Order. These matters include, but
37 are not limited to: building code compliance, wage, hour and other labor
38 regulations, local government fees and charges, and other design or operational
39 issues that do not relate to siting the Project; and permits issued under statutes and
40 rules for which the decision on compliance has been delegated by the Federal
41 government to a state agency other than the Council. ORS 469.401(4) and
42 469.503(3).
43
- 44 4. Both the State and the Certificate Holder shall abide by local ordinances and state
45 law and the rules of the Council in effect on the date this Site Certificate is
46 executed. In addition, upon a clear showing of a significant threat to the public

1 health, safety or the environment that requires application of later-adopted laws or
2 rules, the Council may require compliance with such later-adopted laws or rules.
3 ORS 469.401(2).
4

5 5. For a permit, license or other approval addressed in and governed by this Site
6 Certificate, the Certificate Holder shall comply with applicable state and federal
7 laws adopted in the future to the extent that such compliance is required under the
8 respective state agency statutes and rules. ORS 469.401(2).
9

10 6. Subject to the conditions herein, this Site Certificate binds the State and all
11 counties, cities and political subdivisions in this state as to the approval of the site
12 and the construction, operation and retirement of the Project as to matters that are
13 addressed in and governed by this Site Certificate. ORS 469.401(3).
14

15 7. Each affected state agency, county, city and political subdivision in Oregon with
16 authority to issue a permit, license or other approval addressed in or governed by
17 this Site Certificate shall, upon submission of the proper application and payment
18 of the proper fees, but without hearings or other proceedings, issue such permit,
19 license or other approval subject only to conditions set forth in this Site
20 Certificate. ORS 469.401(3).
21

22 8. After issuance of this Site Certificate, each state agency or local government
23 agency that issues a permit, license or other approval for the Project shall continue
24 to exercise enforcement authority over such permit, license or other approval.
25 ORS 469.401(3).
26

27 9. After issuance of this Site Certificate, the Council shall have continuing authority
28 over the site and may inspect, or direct the Department to inspect, or request
29 another state agency or local government to inspect, the site at any time in order
30 to assure that the Project is being operated consistently with the terms and
31 conditions of this Site Certificate. ORS 469.430.
32

33 10. The Certificate Holder may develop the energy facility in two phases. Phase 1
34 would consist of the southernmost generating unit ("Unit 1"), including one
35 combustion turbine generator, heat recovery steam generator, steam generator,
36 one step-up transformer bank, auxiliary transformer, and cooling tower. Phase 1
37 would also include all of the energy facility components common to the two units
38 and the related or supporting facilities. Phase 2 would consist of the northernmost
39 generating unit ("Unit 2") and its associated facilities. All conditions of this Site
40 Certificate apply equally to Phase 1 and Phase 2, unless a condition specifies
41 different obligations for Phase 1 or Phase 2. [Amendments No. 1 & 3]
42

43 **C. SITE DESCRIPTIONS**

44

45 **C.1. FACILITY**

46

1 **C.1.a. Major Structures and Equipment**

2
3 **Major Structures and Equipment.** The net electric power output of the energy facility
4 will be about 650 MW comprised of base load generation, power augmentation (i.e., duct
5 burning and non-base load generation.) The power augmentation and non-base load
6 generation provide flexible peaking, load-following, and wind integration services that
7 are needed to maintain a reliable and stable utility system. [Amendment No. 7]
8

9 Unit 1 of the energy facility will consist of one heavy-duty frame-type combustion
10 turbine generator (Mitsubishi G Class), one heat recovery steam generator ("HRSG"),
11 and one steam turbine. It will burn natural gas in the combustion turbine and duct
12 burners. Expanding gases from combustion will turn the rotor within the turbine that is
13 connected to an electric generator. The hot gases exhausted from the combustion turbine
14 and duct burners will be used to raise steam in the HRSG. Steam from the HRSG will be
15 expanded through the steam turbine driving its own electric generator. [Amendments No.
16 1 & 7.]
17

18 For Unit 1, the combustion turbine will be housed in a turbine building that provides
19 thermal insulation, acoustical attenuation and fire extinguishing media containment. The
20 turbine building, occupying a footprint measuring about 250 feet by 250 feet and standing
21 about 90 feet high, will also house the steam turbine generator, condenser and
22 balance of plant equipment. The enclosure will allow access for routine inspection and
23 maintenance. The administration building, occupying a footprint measuring about 110
24 feet by 140 feet and standing about 30 feet high, includes the control room and
25 administrative offices. [Amendment No. 7]
26

27 For Unit 1, the HRSG will occupy a footprint measuring about 50 feet by 150 feet and
28 will stand about 110 feet high. A stack will be provided for the HRSG. The stack will be
29 about 36 feet in diameter and 200 feet high. [Amendment No. 7]
30

31 For Unit 2, aeroderivative combustion turbine generators will be equipped with outdoor
32 enclosures with thermal insulation, acoustical attenuation and fire extinguishing media
33 containment. Reciprocating engine generators will be housed in an engine building,
34 occupying a footprint measuring up to 100 feet by 500 feet and standing about 30 to 40
35 feet high. [Amendment No. 7]
36

37 Six transformers will step-up the generator voltages to the substation voltage of 230
38 kilovolts ("kV"). Two auxiliary transformers will supply power for plant auxiliary loads.
39 [Amendments No. 1 & 7]
40

41 Two mechanical-draft cooling towers will be used to remove the waste heat from the
42 main condenser and the plant auxiliary heat exchangers. The cooling towers and
43 circulating water pumps will cover an area of about 75 feet by 650 feet and will stand
44 about 50 feet high. [Amendment No. 7]
45

1 A switchyard or dead-end transmission structure will interconnect the plant's output to
2 the 230-kV transmission network. The switchyard footprint will measure about 300 feet
3 by 500 feet. [Amendment No. 1]
4

5 An auxiliary boiler will supply steam for plant start-ups and short duration shut-downs.
6 The auxiliary boiler will be fueled with natural gas. [Amendment No. 3]
7 Additional facilities will include: a plant services/warehouse building, a boiler feed pump
8 building; a fire water pump building; a water treatment building; a clarifier; a settling
9 basin; a condensate tank, a fire water/service water storage tank and two demineralized
10 water storage tanks (440,000 gallon and 1,100,000 gallon capacity respectively);
11 lubricating oil tanks; a natural gas metering station; natural gas compressor stations with
12 electric compressors of 1,000 to 7,000 horsepower total, enclosed in buildings with
13 acoustical insulation; and, aqueous ammonia storage tanks (each with up to 70,000-gallon
14 capacity and equipped with containment). [Amendments No. 1 & 7]
15

16 Natural gas will not be stored at the energy facility site. Diesel fuel for the fire pumps and
17 reciprocating engine micro-pilot systems will be stored in aboveground tanks. Water
18 treatment chemicals will be stored in permanent aboveground storage tanks or portable
19 plastic tanks (totes). To prevent storm water runoff from chemical storage, all fuel and
20 chemical storage will be inside buildings or under cover in paved areas with a curb. All
21 individual spill containment areas will be designed to hold at least 110 percent of the
22 volume of liquids stored within them. [Amendment No. 7]
23

24 A complete fire protection system will be installed within the buildings and yard areas at
25 the energy facility site. The system will be designed to meet the requirements of the
26 Uniform Fire Code, as amended by Oregon and the National Fire Protection Association,
27 and all other applicable fire protection standards. The fire protection system will include
28 a fire water system, a dry chemical extinguishing system, a carbon dioxide ("CO2")
29 extinguishing system, and portable fire extinguishers. The road system within the energy
30 facility site will be designed for access by large trucks needed for equipment and material
31 deliveries. The minimum turning inside radius for roads will be 40 feet.
32

33 The fire water system will include a fire water supply loop, fire hydrants, sprinkler
34 systems, and hoses placed at appropriate locations. Reserved capacity in the 180,000-
35 gallon fire water/service water storage tank will serve as the firewater source.
36

37 The combustion turbine enclosures will be protected by foam or CO2 systems. If the
38 systems were to activate, an alarm will sound and/or a visual indicator will light up on the
39 gas turbine control panel.
40

41 Portable fire extinguishers will be placed at key locations within the energy facility site.
42 The type and number of portable fire extinguishers will conform to applicable code
43 requirements.
44

45 The Certificate Holder may develop the whole facility at the same time or it may develop
46 only one of the generating units and the related or supporting facilities ("Phase 1") or the

two units of the energy facility in two distinct phases ("Phase 1" and "Phase 2"). As referred to in this Site Certificate, the Certificate Holder would develop Phase 1 first if it develops the energy facility in phases. Phase 1 would consist of the southernmost generating unit ("Unit 1"), including a combustion turbine generator, heat recovery steam generator, steam generator, one step-up transformer bank, auxiliary transformer, and cooling tower. Phase 1 would also include all of the energy facility components common to the two units and the related or supporting facilities. [Amendments No. 1 & 3]

Output. The net electric power output of the energy facility will be up to 650 MW, comprised of base load generation, power augmentation (i.e. duct burning), and non-base load generation. The power augmentation and non-base load generation provide flexible peaking, load-following, and wind integration services that are needed to maintain a reliable and stable utility system. [Amendments No. 1, 3 & 7]

The Certificate Holder proposes to operate Unit 1 with power augmentation technologies for 3,000 hours annually on average. The Certificate Holder proposes to operate Unit 2 as a non-base load power plant. [Amendments No. 1, 3 & 7]

Fuel Use. The energy facility will use natural gas as the only fuel to power the turbines and the power augmentation technologies. It will use up to approximately 4,700 MMBtu per hour of natural gas at full load with the duct burners in operation at the average annual site condition. [Amendments No. 1, 3 & 7]

Water Use. The energy facility will obtain water to generate steam and to cool the steam process from an existing PGE intake structure on the Bradbury Slough of the Columbia River. For Unit 1, the Certificate Holder obtained a permanent transfer of 5.4 cfs of a water right associated with PGE's Trojan Nuclear Plant, Certificate No. 81969. For Unit 2, PGE will obtain a permanent transfer of an additional 3.0 cfs under the same water right.¹ [Amendments No. 1, 3 & 7]

Average water demand over the at the energy facility will be about 2,800 gallons per minute ("gpm"), or 4.03 million gallons per day ("gpd"). Peak water demand will be about 3,770 gpm, 5.4 million gpd, or 8.4 cubic feet per second ("cfs"). [Amendments No. 1, 3 & 7]

PGE owns and operates an existing intake structure on the Bradbury Slough, which will be the authorized point of diversion for surface water rights transferred for use at the energy facility site. To serve the energy facility, PGE will place additional pumps within the existing intake facility. PGE will employ fish screens compliant with National Marine Fisheries Service ("NMFS") screening criteria and Oregon Department of Fish and Wildlife ("ODFW") criteria. [Amendments No. 1 & 7]

Wastewater. Process blowdown is washdown water, filter backwash or other non-sanitary liquid waste produced within the energy facility. The average volume of process

¹ WRD will issue the transferred water right a new number, replacing #81969

1 blowdown for both units combined will be about 30 gpm. Cooling system blowdown is
2 water withdrawn from the cooling system to control the buildup of dissolved salts. The
3 average volume of cooling system blowdown for both units combined will be about 970
4 gpm, but it could vary depending on the quality of the river water supply. The energy
5 facility will discharge its process and cooling system blowdown to the Columbia River
6 under a National Pollution Discharge Elimination System ("NPDES") permit that the
7 Port of St. Helens has requested from DEQ. [Amendments No. 1 & 7].
8

9 The Certificate Holder will discharge sanitary sewage to an engineered septic tank and
10 drain field at a rate of about 500 gallons per day, as permitted by a Water Pollution
11 Control Facilities permit. The Certificate Holder will route storm water from roofs and
12 paved areas to pervious areas to percolate into the shallow groundwater.
13

14 **C.1.b. Related or Supporting Facilities**

15 The energy facility will include the following related or supporting facilities:
16

17 **Natural Gas Pipelines.** Natural gas will fuel the combustion turbine generators and duct
18 burners. The energy facility will be served by the Kelso-Beaver Pipeline, an existing
19 FERC-regulated interstate pipeline with a current capacity of 193,000 decatherms per
20 day. PGE owns the pipeline jointly with two other parties. To create the additional
21 capacity that will be required to serve the energy facility, PGE will add 1,000 to 7,000
22 compressor horsepower to the Port Westward site and/or up to 8,000 compressor
23 horsepower to the Kelso-Beaver Pipeline. All work on the existing pipeline will be
24 subject to FERC approval. The addition of compressor horsepower is intended to ensure
25 300 to 1000 psig gas pressure at the Port Westward Industrial Area with total capacity of
26 310 million standard cubic feet/day. [Amendments No. 1 & 7]
27

28 The interconnecting pipeline, about 18 inches in diameter, between the existing Kelso-
29 Beaver Pipeline and the energy facility will be about 1,000 feet long and will be installed
30 below grade with appropriate cathodic protection.
31

32 In addition, the facility will include as a related or supporting facility a secondary natural
33 gas pipeline that will connect the energy facility to an extension of the existing 20-inch
34 NW Natural Beaver Lateral. The connecting pipeline will be approximately 2000 feet
35 long and about 12 inches in diameter. The new pipeline will be installed below grade
36 with appropriate cathodic protection. The new pipeline will be owned and operated by
37 NW Natural. [Amendment No. 5]
38

39 **Water Supply Pipeline.** Water supply for the energy facility will be drawn from
40 Bradbury Slough at about River Mile 53.8 of the Columbia River from an existing PGE
41 intake facility for the PGE Beaver Generating Plant. The pump capacity of the existing
42 intake facility will be expanded. No major structural improvements or modifications to
43 the intake facility will be required. However, PGE will upgrade the fish screens to
44 comply with NMFS and ODFW criteria regardless of whether it builds the Port
45 Westward Generating Project. The Certificate Holder will install a water supply pipeline
46 about 20 inches in diameter and 6,000 feet long to convey water from the intake facility

1 to the energy facility. The water supply pipeline will traverse upland areas and will avoid
2 wetlands. [Amendment No. 1]

3
4 **Chlorination and Electrical Control Buildings.** Two small structures will be
5 constructed on upland south of the intake facility. One structure, with a footprint of about
6 600 square feet, will be for chlorination. The other structure, with a footprint of about 150
7 feet, will be for electrical control. Underground lines in a 25-foot wide corridor will
8 connect these structures to the intake structure. [Amendment No. 3]

9
10 **Wastewater Pipeline.** Process and cooling wastewater discharged from the energy
11 facility will be collected in a settling basin and returned to the Columbia River about one-
12 half mile northwest of the energy facility, pursuant to the Port of St. Helens' NPDES
13 permit. [Amendment No. 1]

14
15 **Utility Lines Between the Energy Facility Site and the PGE Beaver Generating**
16 **Plant.** The Certificate Holder will construct water, backup electricity and
17 communications lines between the existing PGE Beaver Generating Plant and the energy
18 facility. The Certificate Holder will install the lines below ground within existing
19 roadways. Potable water may be conveyed to the energy facility in a pipeline from the
20 potable water storage tank located in the vicinity of the PGE water intake facility that
21 currently serves the PGE Beaver Generating Plant. The potable water pipeline will be
22 about two inches in diameter. The Certificate Holder will install the potable water line
23 underground. The potable water line will join the energy facility's water supply pipeline
24 corridor at their intersection as shown on revised Figure B-2. [Amendment No. 1]

25
26 The Certificate Holder may also construct a demineralized water pipeline about six
27 inches in diameter from the PGE Beaver Generating Plant to the energy facility. If the
28 Certificate Holder constructs the demineralized water pipeline, it will not construct a
29 water treatment building as part of the energy facility. The Certificate Holder will install
30 a backup 13.8 kV electrical distribution line and a communications line in a conduit from
31 the PGE Beaver Generating Plant to the energy facility. The demineralized water line,
32 communications line, and backup electricity lines will be about 1,200 feet long, and the
33 portion of the potable water line between the potable water storage tank and the water
34 supply pipeline corridor will be about 1,700 feet long [Amendments No. 1 & 3]

35
36 **Temporary Construction Staging and Laydown Areas.** Temporary construction
37 staging and laydown areas totaling approximately 12.4 acres will be located around the
38 energy facility site. Another laydown area of about 6 acres will be located on upland
39 south of the existing PGE water intake structure. The areas will be used for storing
40 equipment and materials and as staging areas for constructing the power plant.
41 Construction laydown and staging areas are as depicted on Figure B-2 rev.1, submitted
42 with the Fourth Request for Amendment on January 18, 2006. [Amendment No. 4]

43
44 **Spoils Disposal Area.** Excess soils from construction at the energy facility site will be
45 spread across the spoils disposal site of about 11.6 acres, which will be located southeast
46 of the PGE Beaver Generating Plant. [Amendment No. 3].

1
2 **Electric Transmission Line.** The energy facility will deliver electric power to the
3 regional grid by means of a new transmission line consisting of one 230 kV circuit on
4 monopole towers (up to 120 feet high) routed along existing power line easements. There
5 are two transmission line alternatives routes under consideration, with two other short
6 alternative segments in the vicinity of the BPA Allston Substation:

7
8 Alternative One. The first alternative will entail routing the transmission line from
9 the energy facility to the Bonneville Power Administration ("BPA") Allston
10 Substation near Alston, Oregon (a distance of about 10 miles).

11
12 Alternative Two. The second alternative will entail routing the transmission line
13 from the energy facility to the PGE Trojan Substation near Goble, Oregon (a
14 distance of about 20 miles).

15
16 PWGP and the Summit Project present a unique situation regarding the transmission lines
17 for their facilities. The two proposed energy projects will be located close to each other
18 and will use the same existing transmission corridor and the same towers from Port
19 Westward to the vicinity of the BPA Allston Substation, Alternative One. The towers will
20 be double-circuited, with PWGP on one side and the Summit Project on the other.

21
22 The Portland General Electric Transmission Group will build the transmission lines for
23 either or both projects, depending on which energy facilities are eventually constructed.
24 The transmission line for each project is a related or supporting facility for that project,
25 and therefore, must be built to Council standards. However, because the Council is
26 reviewing the applications for both projects simultaneously, because they will use the
27 same towers, and because the same company will build and operate the transmission
28 lines, the Council has consolidated the reviews within the PWGP proceeding and is
29 placing conditions for the transmission lines in the site certificate for the Port Westward
30 Generating Project.

31
32 Some conditions account for the possibility that the Certificate Holder may construct the
33 Port Westward to BPA Allston Substation Transmission Line separately from
34 constructing the energy facility. Additionally, if the Certificate Holder for PWGP does
35 not construct the energy facility within the time specified in its Site Certificate or if it
36 terminates its Site Certificate, the Council intends that the Certificate Holder of the
37 Summit Project must amend its Site Certificate to include the 230 kV transmission line
38 from the Summit Project to the BPA Allston Substation.

39 40 **C.2. LOCATION OF THE FACILITY**

41 42 **C.2.a. The Energy Facility Site**

43 The energy facility will be located about seven miles by road northeast of the city of
44 Clatskanie in Columbia County, Oregon. The energy facility site will be located on an
45 approximately 852-acre parcel leased to PGE by the Port of St. Helens in Section 15,

1 Township 8 North, Range 4 West, Willamette Meridian. The energy facility site will be
2 fenced and will comprise about 26 acres of the larger parcel [Amendments No. 1, 2 & 7]
3

4 Bradbury Slough of the Columbia River lies to the northeast of the energy facility site.
5 Access to the energy facility site will be by traveling about 1.5 miles north on Kallunki
6 Road from its intersection with Alston-Mayger Road. The existing PGE Beaver
7 Generating Plant is located about one-half mile southwest of the energy facility site.
8

9 **C.2.b. Related or Supporting Facility Sites**

10 **Natural Gas Pipeline Corridors.** The primary natural gas pipeline will be about 18
11 inches in diameter and will interconnect with the existing Kelso-Beaver Pipeline about
12 1,000 feet west of the energy facility site. The natural gas pipeline corridor will lie within
13 the 852-acre parcel leased to PGE by the Port of St. Helens and situated within Section
14 15, Township 8 North, Range 4 West, Willamette Meridian.
15

16 The secondary natural gas pipeline will be about 12 inches in diameter, extending from
17 the energy facility to an extension of the existing NW Natural Beaver Lateral, near the
18 northeast corner of the Beaver Generating Plant. The related or supporting portion of the
19 new natural gas pipeline corridor will be approximately 2000 feet long and will lie within
20 the 852-acre parcel leased to PGE by the Port of St. Helens and situated within Sections
21 15 and 16, Township 8 North, Range 4 West, Willamette Meridian. [Amendment No. 5]
22

23 **Water Supply Pipeline Corridor.** The proposed water supply pipeline will supply raw
24 water to the energy facility from the existing PGE Beaver Generating Plant water intake
25 structure in Bradbury Slough of the Columbia River. The pipeline right-of-way will be
26 about 50 feet wide and 6,000 feet long, will cover an area of about 7 acres, and will lie
27 within the 852-acre parcel leased to PGE by the Port of St. Helens and situated within
28 Section 15, Township 8 North, Range 4 West, Willamette Meridian.
29

30 **Chlorination and Electrical Control Buildings.** Two small structures will be
31 constructed on upland south of the existing PGE Beaver Generating Plant water intake
32 structure in Bradbury Slough. The two structures, with a combined footprint of about 750
33 square feet, will lie within the 852-acre parcel leased to PGE by the Port of St. Helens
34 and situated within Section 15, Township 8 North, Range 4 West, Willamette Meridian.
35 [Amendment No. 3].
36

37 **Wastewater Pipeline Corridor.** Water discharged from the energy facility will be
38 returned to the Columbia River about one-half mile northwest of the energy facility. The
39 wastewater pipeline corridor will be about 100 feet wide and 2,400 feet long, will cover
40 an area of about 6 acres, and will lie primarily within the 852-acre parcel leased to PGE
41 by the Port of St. Helens and situated within Section 15 and 16, Township 8 North,
42 Range 4 West, Willamette Meridian. [Amendment No. 1]
43

44 **Utility Line Corridor Between the Energy Facility Site and the PGE Beaver**
45 **Generating Plant.** The Certificate Holder will construct a potable water pipeline, backup
46 electricity line, communications line and possibly a demineralized water pipeline from

1 the PGE Beaver Generating Plant or the potable water tank to the energy facility site. It
2 would install the lines a minimum depth of three feet below grade in existing roadways
3 entirely with the 825-acre parcel that the Port of St. Helens has leased to PGE. The parcel
4 is located within Section 15 and 22, Township 8 North, Range 4 West, Willamette
5 Meridian. [Amendment No. 1]

6
7 **Temporary Construction Staging and Laydown Areas.** Temporary construction
8 staging and laydown areas totaling approximately 12.4 acres will be located around the
9 energy facility site, within the 852-acre parcel leased to PGE by the Port of St. Helens
10 and situated within Sections 15 and 16, Township 8 North, Range 4 West, Willamette
11 Meridian. Another laydown area of about 6 acres will be located on upland south of the
12 existing PGE water intake structure within Section 15, Township 8 North, Range 4 West,
13 Willamette Meridian. The areas will be used for storing equipment and materials and as
14 staging areas for constructing the power plant. Construction laydown and staging areas
15 are as depicted on Figure B-2 rev.1 as submitted with the Request for Fourth Amendment
16 on January 18, 2006 [Amendment No. 4]

17
18 **Spoils Disposal Area.** Excess soils from construction at the energy facility site will be
19 spread across the spoils disposal site of about 11.6 acres, which will be located southeast
20 of the PGE Beaver Generating Plant, within the 852-acre parcel leased to PGE by the
21 Port of St. Helens and situated within Sections 15 and 22, Township 8 North, Range 4
22 West, Willamette Meridian. [Amendment No. 3]

23
24 **Transmission Line Corridor.** The transmission line will follow one of two alternative
25 routes:

26
27 Alternative One. Under this alternative, the energy facility will deliver electric
28 power to the BPA Allston Substation near Alston, Oregon, by means of a new
29 230-kV circuit on monopole steel structures, except where it will have to cross the
30 existing BPA lines. A separate 230 kV circuit will carry the output of the Summit
31 Project on the same structures, as noted above. The new transmission line will be
32 routed on an existing PGE right-of-way that is 250 feet wide, except at the BPA
33 Allston Substation where a new right-of-way may be required. The structures will
34 be placed on or near the centerline of the unused north half of the right-of-way.
35 The transmission line corridor will be about 125 feet wide and 10 miles long, will
36 occupy an area of about 300 acres, and will pass through Sections 15, 22, 23, 26,
37 35 and 36, Township 8 North, Range 4 West, and Sections 31, 5, 6, 4, 3 and 10,
38 Township 7 North, Range 3 West, Willamette Meridian.

39
40 Alternative Two. Under this alternative, the energy facility will deliver electric
41 power to Trojan near Goble, Oregon, by means of a new 230-kV circuit on
42 monopole steel structures. Between PWGP and the BPA Allston Substation, the
43 new transmission line will be routed on an existing PGE right-of-way 250 feet
44 wide as described in Alternative One. The structures will be placed on or near the
45 centerline of the unused north half of the right-of-way. Between the BPA Allston
46 Substation and Trojan, the new transmission line will run parallel to an existing

1 BPA transmission line. This section of the transmission line corridor will be about
2 125 feet wide and ten miles long, will occupy an area of about 300 acres, and will
3 pass through Sections 10, 11, 15, 14, 23 and 24, Township 7 North, Range 3
4 West, and Sections 19, 30, 29, 28, 33 and 34, Township 7 North, Range 2 West,
5 and Sections 3 and 2, Township 6 North, Range 2 West, Willamette Meridian.
6

7 Alternates 3 and 4. These short alternate segments are in the vicinity of the BPA
8 Allston Substation. They provide flexibility for interconnecting with the
9 substation.
10

11 Unanalyzed Options. As shown on Figure C-2 of the ASC, and in particular the
12 enlarged detail of the BPA Allston Substation, there is a segment of Alignment 1
13 identified as "2nd (future) circuit." This Site Certificate does not address that
14 proposed segment of Alignment 1.
15

16 **D. COUNCIL SITING STANDARDS**

17 **D.1. [PLACEHOLDER]** 18 [No Conditions] 19 20

21 **D.2. ORGANIZATIONAL EXPERTISE**

- 22
23 (1) The Certificate Holder shall report to the Department of Energy ("Department")
24 in a timely manner any change in the ownership of Portland General Electric
25 Company ("PGE").
26
- 27 (2) Before beginning construction of the energy facility, the Port Westward to
28 Bonneville Power Administration ("BPA") Allston Substation Transmission Line,
29 or other related or supporting facilities, the Certificate Holder shall identify to the
30 Energy Facility Siting Council ("Council") whom it has chosen to act in the role
31 of the engineering, procurement and construction ("EPC") contractor(s) for
32 specific portions of the work.
33
- 34 (3) If the Certificate Holder chooses a third-party contractor to operate the facility,
35 the Certificate Holder shall submit to the Council the identity of the contractor so
36 the Council may review the qualifications and capability of the contractor to meet
37 the standards of OAR 345-0022-0010. If the Council finds that a new contractor
38 meets these standards, the Council shall not require an amendment to the Site
39 Certificate for the Certificate Holder to hire the contractor.
40
- 41 (4) Any matter of non-compliance under this Site Certificate shall be the
42 responsibility of the Certificate Holder. Any notice of violation issued under the
43 Site Certificate will be issued to the Certificate Holder. Any civil penalties levied
44 shall be levied on the Certificate Holder.
45

- 1 (5) The Certificate Holder shall contractually require the EPC contractor(s) and all
2 independent contractors and subcontractors involved in the construction and
3 operation of the facility to comply with all applicable laws and regulations and
4 with the terms and conditions of the Site Certificate. Such contractual provision
5 shall not operate to relieve the Certificate Holder of responsibility under the Site
6 Certificate.
7
- 8 (6) The Certificate Holder shall obtain necessary state and local permits or approvals
9 required for the construction, operation and retirement of the facility or ensure
10 that its contractors obtain the necessary state and local permits or approvals.
11
- 12 (7) [Deleted]. [Amendments No. 1 & 7]
13
- 14 (8) Before beginning construction of the energy facility, the Certificate Holder shall
15 deliver to the Department evidence that the Oregon Department of Environmental
16 Quality has issued to the Port of St. Helens a National Pollutant Discharge
17 Elimination System ("NPDES") permit that provides for the discharge of non-
18 sanitary wastewater from the Port Westward Industrial Site, including all non-
19 sanitary wastewater produced by the energy facility.
20
- 21 (9) Before beginning construction of the energy facility, the Certificate Holder shall
22 deliver to the Department a copy of the agreement between the Certificate Holder
23 and the Port of St. Helens that provides for discharge of non-sanitary wastewater
24 from the energy facility by means of the NPDES permit issued to the Port of St.
25 Helens.
26

27 **D.3. RETIREMENT AND FINANCIAL ASSURANCE**
28

- 29 (1) The Certificate Holder shall retire the facility if the Certificate Holder
30 permanently ceases construction or operation of the facility. The Certificate
31 Holder shall retire the facility according to a final retirement plan approved by the
32 Council, as described in OAR 345-027-0110, and prepared pursuant to Condition
33 D.3(2).
34
- 35 (2) Two years before closure of the energy facility, the Certificate Holder shall
36 submit to the Department a proposed final retirement plan for the facility and site,
37 pursuant to OAR 345-027-0110, including:
38
- 39 (a) A plan for retirement that provides for completion of retirement within
40 two years of permanent cessation of operation of the energy facility and
41 that protects the public health and safety and the environment;
42
- 43 (b) A description of actions the Certificate Holder proposes to take to restore
44 the site to a useful, non-hazardous condition; and,
45

1 (c) A detailed cost estimate, a comparison of that estimate with the dollar
2 amount secured by a bond or letter of credit and any amount contained in a
3 retirement fund, and a plan for assuring the availability of adequate funds
4 for completion of retirement.
5

6 (3) The Certificate Holder shall prevent the development of any conditions on the site
7 that would preclude restoration of the site to a useful, non-hazardous condition to
8 the extent that prevention of such site conditions is within the control of the
9 Certificate Holder.
10

11 (4) A retirement plan that the Certificate Holder submits may provide transmission
12 lines constructed and operated under this Site Certificate remain in operation to
13 serve other energy facilities. [Amendment No. 3]
14

15 (5) The Certificate Holder shall submit to the State of Oregon, through the Council, a
16 bond or letter of credit in the amount described below, naming the State of
17 Oregon, acting by and through the Council, as beneficiary or payee [Amendments
18 No. 3 & 7]
19

20 (a) Before beginning construction of Unit 1, the Certificate Holder submitted
21 a bond or letter of credit in the amount of \$3,698,000 (in 2004 dollars as
22 of the fourth quarter). Upon execution of the Seventh Amended Site
23 Certificate, the Certificate Holder shall adjust the amount of the bond or
24 letter of credit to \$5,201,000 (in 1st Quarter 2010 dollars). [Amendments
25 No. 1, 3 & 7]
26

27 (b) Before beginning construction of Unit 2, the Certificate Holder shall
28 submit a bond or letter of credit in an amount equal to the sum of (i)
29 \$5,201,000 (in 1st Quarter 2010 dollars) for Unit 1, plus (ii) an amount for
30 Unit 2 determined by application of the Department's Facility Retirement
31 Cost and Estimating Guide² subject to review and approval by the
32 Department. [Amendments No. 3 & 7]
33

34 (c) [Deleted]. [Amendments No. 1 & 3]
35

36 (d) The form of the bond or letter of credit and identity of the issuer shall be
37 subject to approval by the Council.
38

39 (e) The Certificate Holder shall maintain a bond or letter of credit in effect at
40 all times until the energy facility or the Port Westward to BPA Allston
41 Substation Transmission Line has been retired, as appropriate.
42

² The Department's Facility Retirement Cost and Estimating Guide is available from the
Oregon Department of Energy

- 1 (f) The calculation of 1st quarter 2010 dollars (or 2002 dollars for purposes
2 of any five year supplemental payments for carbon dioxide offsets for
3 power augmentation on Unit 1) shall be made using the U.S. Gross
4 Domestic Product Implicit Price Deflator, Chain-Weight, as published in
5 the Oregon Department of Administrative Services' "Oregon Economic
6 and Revenue Forecast," or by any successor agency (the "Index")³. If at
7 any time the Index is no longer published, the Council shall select a
8 comparable calculation of 2002, 2004 and 2010 dollars. [Amendments No.
9 3, 6 and 7]
- 10
- 11 (g) The amount of the bond or letter of credit account shall increase annually
12 by the percentage increase in the Index.
- 13
- 14 (h) The Certificate Holder shall not revoke or reduce the bond or letter of
15 credit before retirement of the facility without approval by the Council.
- 16
- 17 (6) The Certificate Holder shall describe in the annual report submitted to the
18 Council, pursuant to OAR 345-026-0080, the status of the retirement fund or
19 other instrument to ensure it has adequate funds to restore the site.
- 20
- 21 (7) Before beginning construction of the energy facility, the Certificate Holder shall
22 prepare and submit to the Department a materials management and monitoring
23 plan that addresses the handling of hazardous substances, the measures it will
24 implement to prevent site contamination, and how it will document
25 implementation of the plan during construction. The materials management and
26 monitoring plan shall be subject to approval by the Department. For the purpose
27 of this condition and Conditions D.3(8), D.3(10), D.3(11), and D.3(12) below, the
28 terms "release" and "hazardous substances" shall have the meanings set forth at
29 ORS 465.200.
- 30
- 31 (8) Before beginning operation of the energy facility, the Certificate Holder shall
32 prepare and submit to the Department a materials management and monitoring
33 plan that addresses the handling of hazardous substances, the measures it will
34 implement to prevent site contamination, and how it will document
35 implementation of the plan during operation. The materials management and
36 monitoring plan shall be subject to approval by the Department.
- 37
- 38 (9) Not later than 10 years after the date of commercial operation of Phase 1 of the
39 energy facility, and each 10 years thereafter during the life of the energy facility,
40 the Certificate Holder shall complete an independent Phase I Environmental Site
41 Assessment of the energy facility site. Within 30 days after its completion, the
42 Certificate Holder shall deliver the Phase I Environmental Site Assessment report
43 to the Department. [Amendment No. 1]

³ DAS maintains the Index and places it on line at
<http://www.oregon.gov/DAS/OEA/docs/economic/econdata/other-quarterly.xls>

- 1
2 (10) In the event that any Phase I Environmental Site Assessment identifies improper
3 handling or storage of hazardous substances or improper record keeping
4 procedures, the Certificate Holder shall correct such deficiencies within six
5 months after completion of the corresponding Phase I Environmental Site
6 Assessment. It shall promptly report its corrective actions to the Department. The
7 Council shall determine whether the corrective actions are sufficient.
8
9 (11) The Certificate Holder shall report any release of hazardous substances, pursuant
10 to DEQ regulations, to the Department within one working day after the discovery
11 of such release. This obligation shall be in addition to any other reporting
12 requirements applicable to such a release.
13
14 (12) If the Certificate Holder has not remedied a release consistent with applicable
15 Oregon Department of Environmental Quality standards or if the Certificate
16 Holder fails to correct deficiencies identified in the course of a Phase I
17 Environmental Site Assessment within six months after the date of the release or
18 the date of completion of the Phase I Environmental Site Assessment, the
19 Certificate Holder shall submit within such six-month period to the Council for its
20 approval an independently prepared estimate of the additional cost of remediation
21 or correction.
22
23 (a) Upon approval of an estimate by the Council, the Certificate Holder shall
24 increase the amount of its bond or letter of credit by the amount of the
25 estimate.
26
27 (b) In no event, however, shall the Certificate Holder be relieved of its
28 obligation to exercise all due diligence in remedying a release of
29 hazardous substances or correcting deficiencies identified in the course of
30 a Phase I Environmental Site Assessment.
31
32 (13) All funds received by the Certificate Holder from the salvage of equipment and
33 buildings shall be committed to the restoration of the energy facility site to the
34 extent necessary to fund the approved site restoration and remediation.
35
36 (14) The Certificate Holder shall pay the actual cost to restore the site to a useful, non-
37 hazardous condition at the time of retirement, notwithstanding the Council's
38 approval in the Site Certificate of an estimated amount required to restore the site.
39
40 (15) If the Council finds that the Certificate Holder has permanently ceased
41 construction or operation of the facility without retiring the facility according to a
42 final retirement plan approved by the Council, as described in OAR 345-027-0110
43 and prepared pursuant to Condition D.3(2), the Council shall notify the Certificate
44 Holder and request that the Certificate Holder submit a proposed final retirement
45 plan to the Department within a reasonable time not to exceed 90 days.
46

- 1 (a) If the Certificate Holder does not submit a proposed final retirement plan
2 by the specified date or if the Council rejects the retirement plan that the
3 Certificate Holder submits, the Council may direct the Department to
4 prepare a proposed a final retirement plan for the Council's approval.
5
6 (b) Upon the Council's approval of the final retirement plan prepared pursuant
7 to subsection (a), the Council may draw on the bond or letter of credit
8 described in Condition D.3(5) and shall use the funds to restore the site to
9 a useful, non-hazardous condition according to the final retirement plan, in
10 addition to any penalties the Council may impose under OAR Chapter
11 345, Division 29.
12
13 (c) If the amount of the bond or letter of credit is insufficient to pay the actual
14 cost of retirement, the Certificate Holder shall pay any additional cost
15 necessary to restore the site to a useful, non-hazardous condition.
16
17 (d) After completion of site restoration, the Council shall issue an order to
18 terminate the Site Certificate if the Council finds that the facility has been
19 retired according to the approved final retirement plan.
20

21 **D.4. LAND USE**
22

- 23 (1) Before beginning construction of the energy facility, the Certificate Holder shall
24 submit a landscaping plan for the energy facility to Columbia County as part of its
25 building permit application for the energy facility. The landscaping plan shall be
26 subject to County approval, provided that the plan is consistent with this Site
27 Certificate and the Final Order. The Certificate Holder shall implement the
28 landscaping plan.
29
30 (2) Before beginning construction of the energy facility, the Certificate Holder shall
31 submit a site plan to Columbia County as part of its building permit application.
32
33 (3) Before beginning construction of the energy facility, the Certificate Holder shall
34 submit to Columbia County as part of its building permit application for the
35 energy facility a final parking lot plan that complies with Section 1400 of the
36 Columbia County Zoning Ordinance. The parking plan shall be consistent with
37 this Site Certificate and Attachment D of the Final Order. The Certificate Holder
38 shall implement the parking lot plan.
39
40 (4) Before beginning construction of the energy facility or the Port Westward to BPA
41 Allston Substation Transmission Line, as appropriate, the Certificate Holder shall
42 apply for and obtain all appropriate land use permits from Columbia County and
43 the City of Rainier.
44
45 (5) Before beginning construction of the energy facility, the Certificate Holder shall
46 enter into a written contract with Columbia County that recognizes the rights of

land owners who are adjacent to and nearby the corridor for the transmission line from the BPA Allston Substation to the Trojan Nuclear Plant where it crosses PF-76 and FA-19 zones to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in OAR 660-006-0025, subsections (4)(e), (m), (s), (t), and (w).

D.5. STRUCTURAL STANDARD

- (1) The Certificate Holder shall design, engineer and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. In no event shall the recommended seismic design parameters be any less than those prescribed by the Oregon Uniform Building Code. As used in this condition, "seismic hazard" includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence.
- (2) If the Certificate Holder does not have subsurface information for design of the transmission lines that is acceptable to the Department and the Oregon Department of Geology and Mineral Industries ("DOGAMI"), then the Certificate Holder shall drill exploratory borings at critical locations during final design of the proposed transmission lines.
- (3) Before beginning construction of the facility, the Certificate Holder shall provide the Department and DOGAMI with a report containing results of geotechnical investigations and recommendations for the design of the energy facility, transmission lines and other related or supporting facilities.
 - (a) The Certificate Holder shall prepare the report consistent with the study designs detailed in the Section D.5 of the Final Order and Section H.3 the Application for a Site Certificate ("ASC").
 - (b) If DOGAMI is not able to review the reports, the Department shall arrange, in consultation with DOGAMI, for an independent review of the report by a qualified registered geologist.
 - (c) If the Certificate Holder begins construction of the Port Westward to BPA Allston Substation Transmission Line before beginning construction of other parts of the facility, Condition D.5(3) shall apply only to the Port Westward to BPA Allston Substation Transmission Line as long as it is the only part of the facility under construction.
- (4) In addition to, or concurrent with Condition D.5(3), before beginning construction within the City of Rainier's Watershed zone, the Certificate Holder shall submit to the City of Rainier, the Department and DOGAMI a geotechnical report prepared by a registered engineer establishing that it can safely accomplish any

1 construction in a known slide hazard area, flood hazard area, or drainage way, or
2 on slopes exceeding 20 percent in that zone.

3
4 (5) If the geotechnical investigation reveals evidence that is not described in the ASC,
5 the Certificate Holder shall revise the facility design parameters to comply with
6 appropriate Uniform Building Code requirements.

7
8 (6) The Certificate Holder shall notify the Department, the State Building Codes
9 Division and DOGAMI promptly if site investigations or trenching reveals that
10 subsurface conditions differ significantly from those described in the ASC. After
11 the Department receives the notice, the Council may require the Certificate
12 Holder to consult with DOGAMI and the Building Codes Division and to propose
13 mitigation actions.

14
15 (7) The Certificate Holder shall notify the Department, the Building Codes Division
16 and DOGAMI promptly if shear zones, artesian aquifers, deformations, or clastic
17 dikes are found at or in the vicinity of the facility site.

18
19 (8) The Certificate Holder shall design, engineer and construct the facility to avoid
20 dangers to human safety presented by non-seismic or aseismic hazards affecting
21 the site. As used in this condition, "non-seismic or aseismic hazards" includes
22 settlement, landslides, groundwater, flooding, and erosion.

23
24 (9) The secondary gas supply pipeline constructed and operated by NWN shall be
25 designed to accommodate the potential for different settlement and seismic
26 induced differential deformation, particularly where the pipeline connects to the
27 existing supply line

28 29 **D.6. SOIL PROTECTION**

30
31 (1) Upon completion of construction in an area, the Certificate Holder shall use
32 native seed mixes to restore vegetation to the extent practicable and shall
33 landscape portions of the site disturbed by construction in a manner compatible
34 with the surroundings and proposed use. Conditions D.6(1) through D.6(6) shall
35 apply to all soil disturbing activities, including maintenance, repair,
36 reconstruction, and retirement of facilities. [Amendment No. 1]

37
38 (2) The Certificate Holder shall employ the following measures to control soil
39 erosion and sediment runoff by water and wind erosion:

40
41 (a) Avoid excavation and other soil disturbances beyond that necessary for
42 construction of the facility or confine equipment use to specific areas.

43
44 (b) Remove vegetation only as necessary.
45

- 1 (c) Apply water or mulch, as necessary, for wind erosion control during
2 construction.
- 3
- 4 (d) Revegetate those construction areas that will no longer be used.
- 5
- 6 (e) Use temporary erosion and sediment control measures, such as sediment
7 fences, straw wattles, bio-filter bags, mulch, permanent and temporary
8 seeding, sediment traps and/or basins, rock check dams or gravel filter
9 berms, and gravel construction entrances, and maintain these features
10 throughout construction and restoration to reduce the potential for soil
11 erosion and sediment runoff.
- 12
- 13 (f) Protect soil stockpiles with mulch and plastic sheeting.
- 14
- 15 (3) If excessively wet conditions occur during construction, the Certificate Holder
16 shall limit construction activities during such periods to the degree practicable in
17 areas susceptible to soil compaction.
- 18
- 19 (4) After completing construction in an area, the Certificate Holder shall monitor the
20 construction area for a period of 12 months to evaluate whether construction-
21 related impacts to soils are being adequately addressed by the mitigation
22 procedures described in the Sediment Erosion and Control Plan. It shall submit its
23 quality assurance measures to the Department for approval before beginning
24 monitoring.
- 25
- 26 (5) After completing construction in an area, the Certificate Holder shall use the
27 results of the monitoring program in Condition D.6(4) to identify remaining soil
28 impacts associated with construction that require mitigation. As necessary, the
29 Certificate Holder shall implement follow-up restoration measures to address
30 those remaining impacts and shall report in a timely manner to the Department
31 what measures it has taken.
- 32
- 33 (6) The Certificate Holder shall remove trapped sediment when the capacity of the
34 sediment trap has been reduced by 50 percent and shall place such sediment in an
35 upland area certified by a qualified wetland specialist.
- 36
- 37 (7) The Certificate Holder shall contain all fuel and chemical storage in paved spill
38 containment areas with a curb.
- 39
- 40 (8) The Certificate Holder shall design all inside spill containment areas to hold at
41 least 110 percent of the volume of liquids stored within them.
- 42
- 43 (9) The Certificate Holder shall design all spill containment areas located outdoors to
44 hold at least 110 percent of the volume of liquids stored within them, together
45 with the volume of precipitation that might accumulate during the 100-year return
46 frequency storm.

- 1
2 (10) During operation, the Certificate Holder shall minimize drift from the cooling
3 towers through the use of high efficiency drift eliminators that allow no more than
4 0.002 percent drift.
5
6

7 **D.7. PROTECTED AREAS**

8 [No Conditions]
9

10 **D.8. FISH AND WILDLIFE HABITAT**
11

- 12 (1) The Certificate Holder shall, to the extent practicable, avoid and, where avoidance
13 is not possible, minimize construction and operation disturbance to areas of native
14 vegetation and areas that provide important wildlife habitat. With respect to
15 construction of the facility, the Certificate Holder shall mitigate possible impacts
16 to wildlife by measures including, but not limited to, the following:
17

- 18 (a) Posting speed limit signs throughout the energy facility construction zone.
19
20 (b) Instructing construction personnel, including construction contractors and
21 their personnel, on sensitive wildlife of the area and on required
22 precautions to avoid injuring or destroying wildlife.
23
24 (c) Instructing construction personnel, including construction contractors and
25 their personnel, to watch out for wildlife while driving through the facility
26 site, to maintain reasonable driving speeds so as not to harass or strike
27 wildlife accidentally, and to be cautious and drive at slower speeds in a
28 period from one hour before sunset to one hour after sunrise when some
29 wildlife species are the most active.
30
31 (d) Requiring construction personnel, including construction contractors and
32 their personnel, to report any injured or dead wildlife detected at the
33 facility site.
34

- 35 (2) The Certificate Holder shall construct, operate and retire the facility to minimize
36 impacts to vegetation and habitat.
37

- 38 (a) The energy facility shall be located within previously disturbed Habitat
39 Category 6, non-native grassland Habitat Category 4, and palustrine
40 emergent and forested/scrub-shrub wetlands Habitat Category 3.
41
42 (b) The Certificate Holder shall limit Habitat Category 3 impacts to 0.43 acres
43 of permanent impact within palustrine emergent and forested/scrub-shrub
44 wetlands.
45

- 1 (3) The Certificate Holder shall site transmission towers outside wetlands and
2 waterways to the greatest extent practicable. If the Certificate Holder must site
3 transmission towers in riparian zones or wetlands, the Certificate Holder shall use
4 a monopole design for the transmission towers to minimize ground impacts and
5 vegetation control, except where it would have to cross the existing BPA lines.
6
- 7 (4) The Certificate Holder shall prohibit construction and maintenance equipment
8 from entering perennial and intermittent streams, except as follows:
9
- 10 (a) Construction equipment may cross a stream if it is dry;
11
- 12 (b) Construction equipment may cross streams that are not dry by using
13 temporary structures to bridge the stream in a manner that minimizes
14 disturbance to the bed, banks and water of the stream;
15
- 16 (c) Construction equipment may cross a wet stream if the Certificate Holder
17 notifies the Division of State Lands, the Oregon Department of Fish and
18 Wildlife ("ODFW") and the Department of its intent to cross the stream
19 prior to the crossing and these agencies concur that the crossing is
20 acceptable.
21
- 22 (A) The Certificate Holder shall return any stream bed or bank that it
23 disturbs during construction or maintenance to conditions that are
24 comparable to pre-disturbed conditions, including stabilizing the
25 bed and banks and revegetating the riparian area with appropriate
26 plant species.
27
- 28 (B) The Certificate Holder shall construct wet stream crossings within
29 the ODFW-designated in-water work period.
30
- 31 (C) The Certificate Holder shall keep the wet stream crossing width to
32 the minimum needed.
33
- 34 (5) The Certificate Holder shall take advantage of existing roads to the extent
35 practicable.
36
- 37 (6) Before beginning construction of the energy facility or beginning construction of
38 the transmission lines, and in the appropriate season, the Certificate Holder shall
39 conduct wildlife surveys within 0.25 miles of the site to locate great blue heron
40 rookeries. Should it locate rookeries, the Certificate Holder shall consult with
41 ODFW and the Department to determine the action necessary to avoid adverse
42 impacts. If it cannot avoid impacts, the Certificate Holder shall suspend
43 construction in the affected areas during the critical nesting period of the species,
44 as determined by the Department in consultation with ODFW.
45
- 46 (7) The Certificate Holder will confirm breeding status and nest location of the Crims

1 Island bald eagles each year and consult with the Department and ODFW
2 concerning the need for monitoring and/or modifications to construction activities
3 if:
4

5 a) the project scope changes in a manner that may affect the bald eagles;
6 and/or,
7

8 b) the location(s) of bald eagle nests on Crims Island changes (e.g. moves
9 closer to the project construction site). [Amendment No. 7]
10

11 (8) As possible and practicable, the Certificate Holder shall conduct site preparation
12 for construction of the PW2 facility in a manner that minimizes potential for
13 impacting nesting native birds protected by the Migratory Bird Treaty Act
14 (MBTA), such as conducting initial site clearing outside of the breeding season
15 for most birds (generally March-July). Prior to commencement of construction
16 activity during the breeding season, a qualified biologist will conduct a walk-
17 down of the construction site to determine the presence of any active bird nests.
18 Construction personnel will be trained regarding avian awareness issues and
19 reporting of bird nests and dead birds found at the construction site (also see
20 Condition D.8(1) for wildlife awareness requirements). The Certificate Holder
21 will consult with USFWS and ODFW regarding any active bird nests found
22 within the construction disturbance area. [Amendment No. 7]

23
24 (9) The Certificate Holder shall schedule construction at the existing raw water intake
25 pump station to avoid the purple martin nesting season (April 1 through June 30).
26 Before beginning construction at the existing raw water intake pump station, the
27 Certificate Holder shall conduct a survey to determine the exact location of any
28 purple martin nests. Should the Certificate Holder cause unavoidable impacts to
29 occur to any purple martin nest, it shall construct, install and maintain an artificial
30 nest site at a nearby location. It shall pick an appropriate location in consultation
31 with ODFW and the Department.
32

33 (10) When working around riparian areas or waterways, the Certificate Holder shall
34 use only herbicide labeled for use in those areas. The Certificate Holder shall
35 abide by all labeling instructions when using herbicides for vegetation
36 maintenance associated with the energy facility and transmission lines rights-of-
37 way.
38

39 (11) The Certificate Holder shall locate chemical storage, servicing of construction and
40 maintenance equipment and vehicles, and overnight storage of wheeled vehicles
41 at least 330 feet from any wetland or waterway.
42

43 (12) The Certificate Holder shall not construct any structure other than fences, signs
44 and the water supply pipeline within 50 feet of any Class I river, stream or the
45 emergent vegetation adjacent to such a river or stream or within 25 feet of any

1 other rivers, streams, and sloughs or the emergent vegetation adjacent to such a
2 river, stream, or slough or within the riparian corridors established under
3 Columbia County Zoning Ordinance Section 1172, as appropriate for the local
4 jurisdiction. [Amendment No. 2]

5
6 (13) To mitigate for impacts to 19 acres of non-native grassland, the Certificate Holder
7 shall protect 19 acres of on-site emergent wetland habitat identified in the ASC by
8 execution of a conservation easement for the life of the energy facility. Before
9 beginning construction of Phase 1 of the energy facility, the Certificate Holder
10 shall provide a copy of the conservation easement or similar conveyance to the
11 Department. [Amendment No. 1]

12
13 (14) The Certificate Holder shall restore temporary upland and wetland disturbance
14 areas by returning the areas to their original grade and seeding, with appropriate
15 seed mixes as recommended by ODFW and as described in Exhibit P, Section
16 P.8.1, of Certificate Holder's Request for Amendment No. 7,⁴ and by mulching
17 the areas with straw. [Amendment No. 7]

18
19 (15) The Certificate Holder shall not clear any more riparian vegetation than is
20 necessary for the permitted land use, including clearing required for safety
21 purposes, during construction or operation of the facility.

22
23 (16) During construction of the transmission line(s) and maintenance of the rights-of-
24 way, the Certificate Holder shall limit clearing of vegetation in riparian areas and
25 wetlands to that needed to prevent contact with the transmission line and to meet
26 clearance standards for safety and transmission line reliability, as provided in the
27 appropriate sections of the National Electrical Code. [Amendment No. 2]

28
29 (17) The Certificate Holder shall mitigate for impacts to riparian shrub and forest
30 habitat that result in canopy cover of less than 25 percent by revegetating these
31 areas with appropriate native woody species according to the Typical
32 Revegetation Plan (ASC, Exhibit Q, page Q-6.1).

33
34 (18) The Certificate Holder shall, as soon as practicable and appropriate after
35 completing construction in an area, implement the mitigation measures specified
36 in Conditions D.8(13), D.8(14) and D.8(17).

37
38 (19) The Certificate Holder shall monitor revegetated areas for a period of five years
39 and shall ensure that new vegetation has an 80 percent survival rate.
40

⁴ PGE submitted revised Exhibit P of its request for amendment 7 in a November 19, 2009 letter from Rick Tetzloff to Adam Bless "Port Westward Generating Project – Revisions to Request to Amend Site Certificate (Amendment 7) to address ODFW comments." Revised section P.8.1 is attached to this Site Certificate as Attachment D.

- 1 (20) The Certificate Holder shall monitor and control nuisance and invasive plant
2 species annually for a period of five years in areas where vegetation removal
3 and/or revegetation has occurred in (1) riparian areas and wetlands along the
4 transmission line rights-of-way, and (2) in areas temporarily disturbed by
5 construction of the raw water, gas, and process water discharge lines, in the
6 temporary construction staging and laydown area northwest of the energy facility
7 site, and in the spoils disposal site. [Amendment No. 3]
8
- 9 (21) The Certificate Holder shall submit an annual monitoring report to ODFW and the
10 Department during the five-year monitoring period specified in Condition
11 D.8(20).
12
- 13 (22) Within one year after completion of construction of the facility or the Port
14 Westward to BPA Allston Substation Transmission Line, if constructed
15 separately, the Certificate Holder shall provide a summary report to ODFW and
16 the Department that identifies the revegetation actions it took and the results of
17 revegetation monitoring conducted to that time. If the Certificate Holder
18 constructs the energy facility in phases, the Certificate Holder shall provide the
19 summary report to ODFW and the Department within one year after completion
20 of each phase. [Amendment No. 1]
21
- 22 (23) Within three months after completion of the final annual monitoring survey, the
23 Certificate Holder shall provide a report to ODFW and the Department that
24 presents the results of its revegetation monitoring.
25
- 26 (24) If revegetation is not successful at establishing appropriate plant cover and
27 controlling erosion, the Certificate Holder shall take remedial actions as the
28 Department directs.
29
- 30 (25) To mitigate for impacts to 8.5 acres of non-native grassland, the Certificate
31 Holder shall protect and enhance at least 8.5 acres of on-site emergent wetland
32 habitat identified in Certificate Holder's Request for Amendment No. 7 by
33 execution of a conservation easement for the life of the energy facility. Habitat
34 enhancement measures will include planting of trees and shrubs and controlling
35 invasive plant species as described in revised Exhibit P, Section P.8.1 of
36 Certificate Holder's Request for Amendment No. 7, November 19, 2009 revision
37 (Attachment D of the Site Certificate). Before beginning construction of Unit 2 of
38 the energy facility, the Certificate Holder shall provide a copy of the conservation
39 easement or similar conveyance to the Department. [Amendment No. 7]
40
41

42 **D.9. THREATENED AND ENDANGERED SPECIES**

43

- 44 (1) Before beginning construction of the transmission line between the BPA Allston
45 Substation and the Trojan Nuclear Plant, the Certificate Holder shall direct
46 qualified personnel to conduct species ground surveys along the transmission line

corridor and within 150 feet on either side of the transmission line corridor at the appropriate time of year to determine the presence of listed plant species. If listed plant species are identified in the course of the species ground surveys, their presence shall be noted on maps, and PGE shall provide copies of the maps to the Department and the Department of Agriculture.

- (2) During construction of the transmission lines, the Certificate Holder shall manipulate construction equipment and site poles, towers and access roads to avoid impacts, except as provided in Condition D.9(4), to known populations of state- or federally-listed plant species.
- (3) The Certificate Holder shall ensure that all maintenance practices along the transmission line corridor minimize impacts to known populations of listed plant species.
- (4) In the event the Certificate Holder determines that it cannot avoid known populations of listed plant species, the Certificate Holder shall engage qualified personnel to determine whether the proposed action has the potential to reduce appreciably the likelihood of the survival or recovery of the listed species, notify the Department of its findings, and obtain approval from the Oregon Department of Agriculture before proceeding with construction activities that affect the listed plant species. (OAR 603-073-0090).
- (5) Before beginning construction of the transmission line, the Certificate Holder shall employ measures to protect raptors in the design and construction of transmission lines. It shall design all energized transmission conductors with either a minimum separation of nine feet or other measures to reduce the potential for electrocution of raptors or other birds.
- (6) The Certificate Holder shall not conduct construction activities at the transmission line terminus at the Trojan Nuclear Plant that generate extreme noise or high levels of visual disturbance during the peregrine falcon critical nesting period from January 1 to June 30. Such activities include pile driving, excavation, and grading for ground stabilization purposes and site preparation. Construction activities involving lower levels of visible activity and less noise are allowed throughout the year. These include such activities as excavating and setting forms, pouring footings, erecting power line towers and bus duct, hanging conductor wires, installing control wires, and testing.
 - (a) Prior to beginning construction at the terminus site, the Certificate Holder shall provide the Department and ODFW with a final construction schedule that lists various construction activities, and time periods when specific work will be conducted. The schedule shall include information on the types of heavy construction equipment that will be used and the approximate number of workers and shall demonstrate that the construction activities are consistent with the limitations of this condition.

1 The Certificate Holder shall provide scheduling updates as necessary to
2 alert the Department and ODFW ahead of time of any proposed changes in
3 the work schedule should the changes occur during the critical nesting
4 period.
5

6 (b) The Certificate Holder shall monitor peregrine falcon activity at the
7 transmission line terminus at the Trojan Nuclear Plant between January 1
8 to June 30 of construction years. Before beginning construction at the
9 transmission line terminus at the Trojan Nuclear Plant, the Certificate
10 Holder shall coordinate with ODFW and the Department and shall
11 consequently prepare a peregrine falcon contingency plan. This
12 contingency plan shall address actions that the Certificate Holder would
13 undertake in the event that the Department and ODFW determine that
14 monitoring shows the peregrine falcon pair's nesting activities are
15 negatively affected by the transmission line construction activities.
16

17 (c) The Certificate Holder shall not proceed with construction activity at the
18 transmission line terminus at the Trojan Nuclear Plant during the peregrine
19 falcon critical nesting period from January 1 to June 30 to the extent that
20 ODFW or the Department determines that the activity is not consistent
21 with the limitations of this condition. [Amendment No. 3]
22

23 (7) The Certificate Holder shall plant suitable vegetative species for deer forage and
24 cover within the wetland mitigation/enhancement area.
25

26 (8) The Certificate Holder shall coordinate with ODFW about whether to conduct
27 site-specific fish sampling at waterways that do not have confirmation of species
28 presence or absence along the transmission line corridor. If ODFW recommends
29 that the Certificate Holder conduct site-specific sampling, the Certificate Holder
30 shall do so and report the results to ODFW and the Department.
31

32 (9) The Certificate Holder shall not undertake construction at the energy facility site
33 during the bald eagle nesting season unless it obtains a final Biological Opinion
34 and Incidental Take Statement issued by the U.S. Fish and Wildlife Service that
35 addresses potential impacts to the bald eagle nest site on the northwest tip
36 (downstream end) of Crims Island.
37

38 (a) The Certificate Holder shall construct and operate the energy facility
39 consistent with the final Biological Opinion and Incidental Take Statement
40 issued by the U.S. Fish and Wildlife Service.
41

42 (b) If the requirements of the Biological Opinion and Incidental Take
43 Statement conflict with any conditions imposed in this Site Certificate, the
44 Certificate Holder shall consult with the Department and ODFW to
45 resolve the conflicts prior to taking any action in reliance on the Biological
46 Opinion and Incidental Take Statement. [Amendment No. 3]

1
2 **D.10. SCENIC AND AESTHETIC VALUES**
3

- 4 (1) During construction of the facility, the Certificate Holder shall ensure that
5 contractors move equipment out of the construction area when it is no longer
6 expected to be used. To the extent practical, contractors shall lower equipment
7 with long arms, such as cranes, bucket trucks, backhoes, when not in use in order
8 to minimize visibility.
9
- 10 (2) During construction of the facility, the Certificate Holder shall control dust
11 through the application of water.
12
- 13 (3) During construction of the energy facility, the Certificate Holder shall use
14 directing and shielding devices on lights to minimize off-site glare. When there is
15 no nighttime construction activity, the Certificate Holder shall minimize night
16 lighting consistent with safety and security requirements.
17
- 18 (4) During operation of the energy facility, the Certificate Holder shall use directing
19 and shielding devices on lights to minimize off-site glare, consistent with safety
20 and security requirements.
21
- 22 (5) Before beginning construction of the energy facility, the Certificate Holder shall
23 submit to Columbia County and the Department an outdoor lighting plan that
24 shows how it will minimize glare from the energy facility site, consistent with
25 Conditions D.10(3) and D.10(4).
26
- 27 (6) The Certificate Holder shall paint structures with low-glare paint in colors
28 selected to complement the surrounding foreground and background colors.
29
- 30 (7) After completion of construction of related and supporting pipelines in an area,
31 the Certificate Holder shall re-vegetate any undeveloped areas disturbed by
32 construction activities using native species, including grasses, shrubs, and trees. If
33 necessary, the Certificate Holder shall water re-vegetated areas on a regular basis
34 until the plant species have been successfully established.
35

36 **D.11. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES**
37

- 38 (1) Before beginning construction of the Port Westward to BPA Allston Substation
39 Transmission Line or the BPA Allston Substation to Trojan Transmission Line,
40 the Certificate Holder shall complete an archaeological survey of the approved
41 transmission line corridors in consultation with the Oregon Historic Preservation
42 Office ("SHPO"), the Confederated Tribes of the Warm Springs Indian
43 Reservation of Oregon, the Confederated Tribes of the Grand Ronde Community
44 of Oregon, the Confederated Tribes of the Siletz Indian Reservation of Oregon,
45 the Chinook Tribe in Washington, and appropriate federal agencies. The
46 Certificate Holder shall ensure that a qualified archaeologist evaluates all cultural

resources identified during the cultural resources survey. The Certificate Holder shall report to SHPO and the Department about whether its archaeologist recommends that a discovery is significant or not significant. If SHPO determines that a discovery is significant, the Certificate Holder shall make recommendations to the Council for mitigation in consultation with SHPO, the Department, the tribes, and other appropriate parties. Mitigation measures shall include avoidance or data recovery. [Amendment No. 1]

- (2) During construction of the facility, the Certificate Holder shall ensure that a qualified person instructs construction personnel in the identification of cultural materials.
- (3) During construction of the facility, in the event any artifacts or other cultural materials are identified, the Certificate Holder shall cease all ground-disturbing activities until a qualified archaeologist can evaluate the significance of the find. The Certificate Holder shall report to SHPO and the Department about whether its archaeologist recommends the artifacts or cultural materials are significant or not significant. If SHPO determines that the materials are significant, the Certificate Holder shall make recommendations to the Council for mitigation in consultation with SHPO, the Department, the tribes, and other appropriate parties. Mitigation measures shall include avoidance or data recovery. The Certificate Holder shall not restart work in the affected area until it has demonstrated to the Department that it has complied with the archaeological permit requirements administered by SHPO. [Amendment No. 1]
- (4) The Certificate Holder shall allow monitoring by the Confederated Tribes of the Warm Springs Indian Reservation of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of the Siletz Indian Reservation of Oregon, and the Chinook Tribe in Washington of earth-moving activities within any areas with a potential for containing archaeological remains.
- (5) Before beginning construction of the facility or of the Port Westward to BPA Allston Substation Transmission Line separately, the Certificate Holder shall notify the Confederated Tribes of the Warm Springs Indian Reservation of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of the Siletz Indian Reservation of Oregon, and the Chinook Tribe in Washington and provide their representatives the opportunity to be available for periodic on-site monitoring during construction activities. If the Certificate Holder constructs the energy facility in phases, the Certificate Holder shall notify the Tribes prior to construction of each phase. [Amendment No. 1]
- (6) If construction activities for the secondary gas pipeline occur at a level below the sandy dredge fill (a depth of 10 feet), then the Site Certificate holder or NW Natural shall immediately contact the State Historic Preservation Officer. [Amendment 5]

1 **D.12. RECREATION**

2 [No Conditions]

5 **D.13. PUBLIC SERVICES**

- 7 (1) During construction, the Certificate Holder shall hire a contractor to provide
8 chemical toilet services or other appropriate facilities for construction personnel.
9
- 10 (2) Prior to applying for construction permits for the second power generation unit,
11 the Certificate Holder shall enter into an Amended Traffic Improvement
12 Agreement and pay a new Traffic Improvement Contribution to Columbia County
13 according to the Amended Traffic Improvement Agreement and consistent with a
14 Traffic Impact Analysis Study for the second power generation unit performed
15 according to parameters agreed to by Columbia County and the Certificate
16 Holder. [Amendment No. 8]
17
- 18 (3) The Certificate Holder shall not agree to amend the Agreement with Columbia
19 County to reduce, revoke or waive the requirement for payment of the appropriate
20 TIC without prior approval of the Council; however, such approval by the
21 Council shall not require an amendment to the Site Certificate.
22
- 23 (4) Before beginning construction of the energy facility, the Certificate Holder shall
24 coordinate with Columbia County the improvement and maintenance of signage
25 and striping at the mainline rail crossing on Kallunki Road, including the
26 installation of "DO NOT STOP ON TRACKS" signs.
27
- 28 (5) If construction of the energy facility occurs concurrently with construction of
29 other projects in the Port Westward Industrial Area, the Certificate Holder shall
30 coordinate with other users of the Port Westward Industrial Area to provide a
31 carpooling program that identifies and/or creates park-and-ride locations to
32 facilitate carpooling.
33
- 34 (6) If construction of the energy facility occurs concurrently with construction of
35 other projects in the Port Westward Industrial Area, the Certificate Holder shall
36 coordinate with Columbia County and other users of the Port Westward Industrial
37 Area on the implementation of a staggered shift schedule if Columbia County
38 determines that traffic conditions warrant it.
39
- 40 (7) During construction of the energy facility, the Certificate Holder shall use barge
41 and railroad deliveries of bulk materials to the extent practicable to minimize the
42 number of freight truck deliveries on local roads.
43
- 44 (8) The Certificate Holder shall construct a fire protection system within the
45 buildings and yard areas of the energy facility site that meets the requirements of
46 the Uniform Fire Code, as amended by Oregon and the National Fire Protection

1 Association standards, and all other applicable fire protection standards in effect
2 at the time of construction.

3
4 (9) The Certificate Holder shall provide a dedicated reserve capacity of 180,000
5 gallons in the raw water storage tank to serve as the fire suppression water source.

6
7 (10) For fire truck access, the minimum inside turning radius of curves in the road
8 system on the energy facility site shall be 40 feet.

9
10 (11) Prior to start of construction of Unit 2 of the energy facility, the certificate holder
11 shall obtain from the Water Resources Department (WRD) a permanent water
12 right transfer subject to the following conditions:

13 a. the right to the use of the water is restricted to beneficial use at the place of use
14 described in transfer application T-10955, and is subject to all other conditions
15 and limitations contained in Certificate **Error! Reference source not found.** and
16 any related decree.

17 b. The quantity of water diverted at the new point of diversion, shall not exceed the
18 quantity of water (3.0 cfs) lawfully available at the original point of diversion.

19 c. WRD may require the water user to install a headgate, a totalizing flow meter, or
20 other suitable measuring devices at the point of diversion. If WRD notifies the
21 water user to install a headgate, a totalizing flow meter, or other measuring
22 devices, the water user shall install such devices specified by WRD within the
23 period allowed in the notice. Once installed, the water user shall maintain the
24 meters or measuring devices in good working order and shall allow the
25 Watermaster access to the meters or measuring devices.

26 d. The water user shall maintain and operate a fish screening and/or by-pass device,
27 as appropriate, at the point of diversion consistent with the Oregon Department of
28 Fish and Wildlife's operational and maintenance standards.

29 e. The approved changes shall be completed and full beneficial use of the water
30 shall be made on or before October 1, 2014. A Claim of Beneficial Use prepared
31 by a Certified Water Rights Examiner shall be submitted by the Certificate Holder
32 to the Department within one year after the deadline for completion of the
33 changes and full beneficial use of the water.

34
35 f. Prior to issuance of the permanent transfer, the certificate holder shall provide to
36 ODOE and WRD a report of land ownership for the lands to which the water right
37 is appurtenant (the FROM lands). The report must be prepared by a title company.
38 The title company's report must either be: 1) prepared within three months of the
39 Energy Facility Siting Council's Final Order on PWGP Amendment 7, or 2)
40 reflect ownership information within three months of the recording of any water
41 right conveyance agreements for the property in the county deed records. The
42 ownership report shall include:

- 1
2 (A) Date reflected by the ownership information
3 (B) List of owners at that time
4 (C) Legal description of the property to which the water right involved in the
5 transfer is currently appurtenant, and
6 (D) A notarized statement of consent from any landowner listed in the ownership
7 report who is not already included in the transfer application, or other
8 information such as a water right conveyance agreement, if applicable.
9 [Amendment No. 7]

10
11 **D.14. WASTE MINIMIZATION, OAR 345-022-0120**
12

- 13 (1) During construction, operation and retirement of the energy facility, the
14 Certificate Holder shall separate recyclable materials from the solid waste stream
15 to the extent practicable, store those materials on site until sufficient quantities
16 exist to make recycling economic, and periodically deliver or sell those materials
17 to a recycling facility.
18
19 (2) During construction, operation and retirement of the energy facility, the
20 Certificate Holder shall segregate all used oil, mercury-containing lights, and
21 lead-acid and nickel-cadmium batteries, store such materials on site, and deliver
22 such materials to a recycling firm specializing in the proper disposal of such
23 materials.
24
25 (3) Upon completion of construction, the Certificate Holder shall dispose of all
26 temporary structures not required for facility operation and all timber, brush,
27 refuse, and flammable or combustible material resulting from clearing of land and
28 construction of the facility.
29
30 (4) During operation of the energy facility, the Certificate Holder shall convey all
31 storm water and water discharges other than sanitary sewage to pervious areas to
32 allow for percolation into the shallow groundwater.
33
34 (5) During operation of the energy facility, the Certificate Holder shall use internal
35 recycling of aqueous streams whereby water shall be recycled several times in the
36 cooling system before being discharged.
37

38 **D.15. CARBON DIOXIDE STANDARD**
39

- 40 (1) Before beginning construction of Phase 1 and Phase 2 of the energy facility,
41 respectively, the Certificate Holder shall submit to The Climate Trust a bond or
42 letter of credit in the amount of the monetary path payment requirement (in 2002
43 dollars for Phase 1 and in 1st quarter 2010 dollars for Phase 2) as determined by
44 the calculations set forth in Condition D.15(3) and based on the estimated heat
45 rates and capacities certified pursuant to Condition D.15(4) and as adjusted in
46 accordance with the terms of this Site Certificate pursuant to Condition

1 D.15(3)(c). For the purposes of this Site Certificate, the "monetary path payment
2 requirement" means the offset funds determined pursuant to OAR 345-024-0550
3 and -0560 and the selection and contracting funds that the Certificate Holder must
4 disburse to The Climate Trust, as the qualified organization, pursuant to OAR
5 345-024-0710 and this Site Certificate. The offset fund rate for the monetary path
6 payment requirement shall be \$0.85 per ton of carbon dioxide (in 2002 dollars)
7 for Phase 1 and \$1.27 per ton of carbon dioxide (in 1st quarter 2010 dollars) for
8 Phase 2. The calculation of 2002 and 1st quarter 2010 dollars shall be made using
9 the Index set forth in Condition D.3(5) and as required below in subsection (g).
10 [Amendments No. 1, 6 & 7]
11

- 12 (a) The form of the bond or letter of credit and identity of the issuer shall be
13 subject to approval by the Council.
14
- 15 (b) The form of the Memorandum of Understanding "MOU") between the
16 Certificate Holder and the Climate Trust establishing the disbursement
17 mechanism to transfer selection and contracting funds and offset funds to
18 The Climate Trust shall be substantially in the form of Attachment A to
19 this Site Certificate.
20
- 21 (c) Either the Certificate Holder or The Climate Trust may submit to the
22 Council for the Council's resolution any dispute between the Certificate
23 Holder and The Climate Trust that concerns the terms of the bond, letter of
24 credit, or MOU concerning the disbursement mechanism for the monetary
25 path payments, or any other issues related to the monetary path payment
26 requirement. The Council's decision shall be binding on all parties.
27
- 28 (d) The bond or letter of credit shall remain in effect until such time as the
29 Certificate Holder has disbursed the full amount of the monetary path
30 payment requirement to The Climate Trust. The Certificate Holder may
31 reduce the amount of the bond or letter of credit commensurate with
32 payments it makes to The Climate Trust. The bond or letter of credit shall
33 not be subject to revocation before disbursement of the full monetary path
34 payment requirement.
35
- 36 (e) In the event that the Council approves a new Certificate Holder for the
37 energy facility:
38
- 39 (A) The new Certificate Holder shall submit to the Council for the
40 Council's approval the form of a bond or letter of credit that
41 provides comparable security to the bond or letter of credit of the
42 current Certificate Holder. The Council's approval of a new bond
43 or letter of credit shall not require a site certificate amendment.
44
- 45 (B) The new Certificate Holder shall submit to the Council for the
46 Council's approval the form of an MOU between the new

1 Certificate Holder and The Climate Trust that is substantially in the
2 form of Attachment A to this Site Certificate. In the case of a
3 dispute between the new Certificate Holder and The Climate Trust
4 concerning the disbursement mechanism for monetary path
5 payments or any other issues related to the monetary path payment
6 requirement, either party may submit the dispute to the Council for
7 the Council's resolution as provided in Condition D.15(1)(c).
8 Council approval of a new MOU shall not require a site certificate
9 amendment.

- 10
- 11 (f) If calculations pursuant to Condition D.15(5) demonstrate that the
12 Certificate Holder must increase its monetary path payments, the
13 Certificate Holder shall increase the bond or letter of credit sufficiently to
14 meet the adjusted monetary path payment requirement within the time
15 required by Condition D.15(3)(c). Alternately, the Certificate Holder may
16 disburse any additional required funds directly to The Climate Trust
17 within the time required by Condition D.15(3)(c).
18
- 19 (g) The amount of the bond or letter of credit shall increase annually by the
20 percentage increase in the Index, and the disbursement of funds shall be
21 pro-rated within the year to the date of disbursement to The Climate Trust
22 from the calendar quarter of Council approval of the Site Certificate.
23
- 24 (2) The Certificate Holder shall disburse to The Climate Trust offset funds and
25 selection and contracting funds as requested by The Climate Trust. The Certificate
26 Holder shall make disbursements in response to requests from The Climate Trust
27 in accordance with subsections (a), (b), and (c).
28
- 29 (a) The Certificate Holder shall disburse all selection and contracting funds to
30 The Climate Trust before beginning construction.
31
- 32 (b) Upon notice pursuant to subsection (c), The Climate Trust may request
33 from the issuer of the bond or letter of credit the full amount of all offset
34 funds available or it may request partial payment of offset funds at its sole
35 discretion. Notwithstanding the specific amount of any contract to
36 implement an offset project, The Climate Trust may request up to the full
37 amount of offset funds the Certificate Holder is required to provide to
38 meet the monetary path payment requirement.
39
- 40 (c) The Climate Trust may request disbursement of offset funds by providing
41 notice to the issuer of the bond or letter of credit that The Climate Trust
42 has executed a letter of intent to acquire an offset project. The Certificate
43 Holder shall provide that the issuer of the bond or letter of credit disburse
44 offset funds to The Climate Trust within three business days of a request
45 by The Climate Trust for the offset funds in accordance with the terms of
46 the bond or letter of credit.

1
2 (3) The Certificate Holder shall submit all monetary path payment requirement
3 calculations to the Department for verification in a timely manner before
4 submitting a bond or letter of credit for Council approval and before entering into
5 an MOU with The Climate Trust. The Certificate Holder shall use the contracted
6 design parameters for capacities and heat rates that it reports pursuant to
7 Condition D.15(4) to calculate the estimated monetary path payment requirement,
8 along with the estimated annual hours of operation of power augmentation
9 technologies and of non-base load power plants for Unit 2. The Certificate Holder
10 shall use the Year One Capacities and Year One Heat Rates that it reports for the
11 facility pursuant to Condition D.15(5) to calculate whether it owes additional
12 monetary path payments. [Amendment No. 7]
13

14 (a) The net carbon dioxide emissions rate for the base load gas plant shall not
15 exceed 0.675 pounds of carbon dioxide per kilowatt-hour of net electric
16 power output, with carbon dioxide emissions and net electric power output
17 measured on a new and clean basis, as defined in OAR 345-001-0010.
18

19 (b) The net carbon dioxide emissions rate for Unit 2, and for incremental
20 emissions of Unit 1 operating with power augmentation technologies that
21 increase the capacity and heat rate of the facility above the capacity and
22 heat rate that it can achieve as a base load gas plant on a new and clean
23 basis ("power augmentation technologies") shall not exceed 0.675 pounds
24 of carbon dioxide per kilowatt-hour of net electric power output, with
25 carbon dioxide emissions and net electric power output measured on a
26 new and clean basis, as the Department may modify such basis pursuant to
27 Condition D.15(4)(d) and (g). [Amendment No. 7]
28

29 (c) When the Certificate Holder submits the Year One Test reports required in
30 Condition D.15(5), it shall increase its monetary path payments if the
31 calculation using reported data shows that the adjusted monetary path
32 payment requirement exceeds the monetary path payment requirement for
33 which the Certificate Holder had provided a bond or letter of credit before
34 beginning construction, pursuant to Condition D.15(1). The Certificate
35 Holder shall submit its calculations to the Department for verification.
36

37 (A) The Certificate Holder shall make the appropriate calculations and
38 fully disburse any increased funds directly to The Climate Trust
39 within 30 days of filing the Year One Test reports.
40

41 (B) In no case shall the Certificate Holder diminish the bond or letter
42 of credit it provided before beginning construction or receive a
43 refund from The Climate Trust based on the calculations made
44 using the Year One Capacities and the Year One Heat Rates.
45

- 1 (4) The Certificate Holder shall include an affidavit certifying the heat rates and
2 capacities reported in subsections (a), (b), (e) and (f).
3
- 4 (a) Before beginning construction of the energy facility, the Certificate Holder
5 shall notify the Council in writing of its final selection of a gas turbine
6 vendor and heat recovery steam generator vendor and shall submit written
7 design information to the Council sufficient to verify the base-load gas
8 plant's designed new and clean heat rate (higher heating value) and its net
9 power output at the average annual site condition.
10
- 11 (b) Before beginning construction of the energy facility, the Certificate Holder
12 shall submit written design information to the Council sufficient to verify
13 the facility's designed new and clean heat rate and its net power output at
14 the average annual site condition when operating with power
15 augmentation technologies.
16
- 17 (c) Before beginning construction of the energy facility, the Certificate Holder
18 shall specify the estimated annual average hours that it expects to operate
19 the power augmentation technologies.
20
- 21 (d) Upon a timely request by the Certificate Holder, the Department may
22 approve modified parameters for testing the power augmentation
23 technologies on a new and clean basis, pursuant to OAR 345-024-0590(1).
24 The Department's approval of modified testing parameters for power
25 augmentation technologies shall not require a site certificate amendment.
26
- 27 (e) Before beginning construction of Unit 2, the Certificate Holder shall
28 notify the Council in writing of its final selection of the quantities and
29 vendors for reciprocating engines and combustion turbine generators and
30 shall submit written design information to the Council sufficient to verify
31 the non-base load power plant's designed new and clean heat rate (higher
32 heating value) and its net power output at the average annual site
33 condition. [Amendment No. 7]
34
- 35 (f) Before beginning construction of Unit 2, the Certificate Holder shall
36 specify the estimated annual average hours that it expects to operate each
37 type of generating unit. The Certificate Holder may estimate annual
38 average hours of operation in a manner consistent with OAR 345-001-
39 0010(38). [Amendment No. 7]
40
- 41 (g) Upon a timely request by the Certificate Holder, the Department may
42 approve modified parameters for testing the non-base load power plants of
43 Unit 2 on a new and clean basis, pursuant to OAR 345-024-0590(1). The
44 Department's approval of modified testing parameters for non-base load
45 power plants shall not require a site certificate amendment. [Amendment
46 No. 7]

- 1
2 (5) Within the first 12 months of commercial operation of each phase of the energy
3 facility, the Certificate Holder shall conduct a 100-hour test at full power without
4 power augmentation technologies ("Year One Test-1") and a test at full power
5 with power augmentation technologies for Unit 1 ("Year One Test-2"). A 100-
6 hour test performed for purposes of the Certificate Holder's commercial
7 acceptance of the facility shall suffice to satisfy this condition in lieu of testing
8 after beginning commercial operation. [Amendments No. 6 & 7]
9
- 10 (a) Year One Test-1 shall determine the actual heat rate ("Year One Heat
11 Rate-1") and the net electric power output ("Year One Capacity-1") on a
12 new and clean basis, without degradation, with the results adjusted for the
13 average annual site condition for temperature, barometric pressure, and
14 relative humidity, and using a rate of 117 pounds of carbon dioxide per
15 million Btu of natural gas fuel pursuant to OAR 345-001-0010(35).
16
- 17 (b) Year One Test-2 shall determine the actual heat rate ("Year One Heat
18 Rate-2") and net electric power output ("Year One Capacity-2") for the
19 facility operating with power augmentation technologies, without
20 degradation, with the results adjusted for the average annual site condition
21 for temperature, barometric pressure and relative humidity, and using a
22 rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel
23 pursuant to OAR 345-001-0010(35). The full power test shall be 100
24 hours duration unless the Department has approved a different duration
25 pursuant to Condition (4)(d) or (4)(g). [Amendment No. 7]
26
- 27 (c) The Certificate Holder shall notify the Department at least 60 days before
28 conducting the tests required in subsections (a) and (b) unless a shorter
29 time is mutually agreed upon.
30
- 31 (d) Before conducting the tests required in subsections (a) and (b), the
32 Certificate Holder shall, in a timely manner, provide to the Department a
33 copy of the protocol for conducting the tests.
34
- 35 (e) Within two months after completing the Year One Tests, the Certificate
36 Holder shall provide to the Council a report of the results of the Year One
37 Tests.
38
- 39 (f) If the certificate holder elects to report all carbon dioxide emissions based
40 on direct measurements pursuant to OAR 345-024-0590(5)(b), then the
41 Year One Test for Unit 2 is not required. However, if the Year One test is
42 not performed, then the certificate holder must continue to report carbon
43 dioxide emissions using actual measured emissions as reported to the
44 Department of Environmental Quality or the U.S. Environmental
45 Protection Agency for all subsequent five year periods over the life of Unit

2, and may not change its election to report based on new and clean heat rate in any subsequent five year period. [Amendment No. 7]

(g) If the Year One test is not performed for Unit 2 pursuant to subsection (f) of this condition, then the certificate holder shall report its net kWh generation and actual measured carbon dioxide emissions for the 12 month period following start of commercial operation of Unit 2. The certificate holder shall report the net kWh generation and actual carbon dioxide emissions for this period to the Department within two months of the end of the first 12 month period. The certificate holder shall use the net kWh generation and measured carbon dioxide emissions to perform the calculations to determine if supplemental monetary path payments are needed as set forth in Condition D.15(6). The certificate holder shall submit these calculations to the Department for verification as set forth in Condition D.15(7). [Amendment No. 7]

(6) If calculations pursuant to Condition D.15(7) demonstrate that the Certificate Holder must supplement its monetary path payments ("supplemental monetary path payment requirement"), the Certificate Holder shall provide a bond or letter of credit sufficient to meet the supplemental monetary path payment requirement within the time required by Condition D.15(7)(b). The bond or letter of credit shall not be subject to revocation before disbursement of the supplemental monetary path payment requirement. Alternately, the Certificate Holder may disburse in cash any such supplemental monetary path payments directly to The Climate Trust within the time required by Condition D.15(7). [Amendment No. 7]

(7) The Certificate Holder shall submit all supplemental monetary path payment requirement calculations and data to the Department for verification. [Amendment No. 7]

(a) Each five years after beginning commercial operation of Unit 1 ("Unit 1 five-year reporting period"), the Certificate Holder shall report to the Department the annual average hours Unit 1 operated with power augmentation technologies during that Unit 1 five-year reporting period, pursuant to OAR 345-024-0590(6). The Certificate Holder shall use the Year One Capacity-2 and Year One Heat Rate-2 that it reports for Unit 1 pursuant to Condition D.15(5)(b) to calculate whether it owes supplemental monetary path payments. The Certificate Holder shall submit Unit 1 five-year reports to the Department within 30 days of the anniversary date of beginning commercial operation of Unit 1. [Amendment No. 7]

(b) If the Department determines that Unit 1 exceeds the projected net total carbon dioxide emissions calculated pursuant to Conditions D.15(4) and D.15(5), prorated for five years, during any Unit 1 five-year reporting period described in subsection (a), the Certificate Holder shall offset

1 excess emissions for the specific reporting period according to subsection
2 (A) and shall offset the estimated future excess emissions according to
3 subsection (B), pursuant to OAR 345-024-0600(4). The Certificate Holder
4 shall offset excess emissions using the monetary path as described in OAR
5 345-024-0710, except that contracting and selecting funds shall equal
6 twenty (20) percent of the value of any offset funds up to the first
7 \$250,000 (in 2002 dollars) and 4.286 percent of the value of any offset
8 funds in excess of \$250,000 (in 2002 dollars). The Certificate Holder shall
9 disburse the funds to The Climate Trust within 30 days after notification
10 by the Department of the amount that the Certificate Holder owes.
11 [Amendment No. 7]
12

13 (A) In determining the excess carbon dioxide emissions that the
14 Certificate Holder must offset for a Unit 1 five-year period, the
15 Department shall apply OAR 345-024-0600(4)(a). The Certificate
16 Holder shall pay for the excess emissions at \$0.85 per ton of
17 carbon dioxide emissions (in 2002 dollars). The Department shall
18 notify the Certificate Holder and The Climate Trust of the amount
19 of payment required, using the monetary path, to offset excess
20 emissions. [Amendments No. 6 & 7]
21

22 (B) The Department shall calculate estimated future excess emissions
23 and notify the Certificate Holder of the amount of payment
24 required, using the monetary path, to offset them. To estimate
25 excess emissions for the remaining period of the deemed 30-year
26 life of the facility, the Department shall use the parameters
27 specified in OAR 345-024-0600(4)(b). The Certificate Holder shall
28 pay for the estimated excess emissions at \$ 0.85 per ton of carbon
29 dioxide (in 2002 dollars). The Department shall notify the
30 Certificate Holder of the amount of payment required, using the
31 monetary path, to offset future excess emissions. [Amendments
32 No. 6 & 7]
33

34 (c) At the time the Certificate Holder submits to the Department the
35 information required by Condition D.15(4)(e) and (f), the Certificate
36 Holder shall make the election required by OAR 345-024-0590(5)(b).
37 The election shall apply for each reporting period required pursuant to
38 subsections (d) and (e). [Amendment No. 7]
39

40 (d) Each five years after beginning commercial operation of Unit 2 ("Unit 2
41 five-year reporting period"), the Certificate Holder shall report to the
42 Department the information required by either subsection A or B. The
43 Certificate Holder shall submit Unit 2 five-year reports to the Department
44 within 30 days of the anniversary date of beginning commercial operation
45 of Unit 2. [Amendment No. 7]
46

- (A) If the Certificate Holder has elected to calculate any excess emissions using annual average hours of operation and new and clean heat rates, the Certificate Holder shall report the annual average hours of operation of each generating unit within Unit 2 during that Unit 2 five-year reporting period, pursuant to OAR 345-024-0590(6). The Certificate Holder shall use the Year One Capacity-1 and Year One Heat Rate-1 that it reports for the corresponding generating units of Unit 2 pursuant to Condition D.15(5)(a) to calculate whether it owes supplemental monetary path payments. [Amendment No. 7]
- (B) If the Certificate Holder has elected to calculate any excess emissions using actual or measured carbon dioxide emissions as reported to either the Oregon Department of Environmental Quality or the U.S. Environmental Protection Agency pursuant to a mandatory carbon dioxide reporting requirement, the Certificate Holder shall submit to the Department the carbon dioxide reporting data and net kWh generation for that Unit 2 five-year reporting period and shall use that data to determine whether it owes supplemental monetary path payments. [Amendment No. 7]
- (e) If the Department determines that Unit 2 exceeds the projected net total carbon dioxide emissions calculated pursuant to Conditions D.15(4) and D.15(5), prorated for five years, during any Unit 2 five-year reporting period described in subsection (d), the Certificate Holder shall offset excess emissions for the specific reporting period according to subsection (A) and shall offset the estimated future excess emissions according to subsection (B), pursuant to OAR 345-024-0600(4). The Certificate Holder shall offset excess emissions using the monetary path as described in OAR 345-024-0710, except that contracting and selecting funds shall equal twenty (20) percent of the value of any offset funds up to the first \$250,000 (in 1st quarter 2010 dollars) and 4.286 percent of the value of any offset funds in excess of \$250,000 (in 1st quarter 2010 dollars). The Certificate Holder shall disburse the funds to The Climate Trust within 30 days after notification by the Department of the amount that the Certificate Holder owes. [Amendment No. 7]
- (A) In determining the excess carbon dioxide emissions that the Certificate Holder must offset for a Unit 2 five-year period, the Department shall apply OAR 345-024-0600(4)(a), unless the Certificate Holder has elected under OAR 245-024-0590(5) to utilize actual or measured carbon dioxide emissions as reported to either the Oregon Department of Environmental Quality or the U.S. Environmental Protection Agency pursuant to a mandatory carbon dioxide reporting requirement. The Certificate Holder shall pay for the excess emissions at \$1.27 per ton of carbon dioxide

emissions (in 1st Quarter 2010 dollars). The Department shall notify the Certificate Holder and The Climate Trust of the amount of payment required, using the monetary path, to offset excess emissions. [Amendment No. 7]

(B) The Department shall calculate estimated future excess emissions and notify the Certificate Holder of the amount of payment required, using the monetary path, to offset them. To estimate excess emissions for the remaining period of the deemed 30-year life of the facility, the Department shall use the parameters specified in OAR 345-024-0600(4)(b). The Certificate Holder shall pay for the estimated excess emissions at \$1.27 per ton of carbon dioxide (in 1st quarter 2010 dollars). The Department shall notify the Certificate Holder of the amount of payment required, using the monetary path, to offset future excess emissions. [Amendment No. 7]

(8) The combustion turbine for the base-load gas plant and power augmentation technologies and any combustion turbines constructed as part of Unit 2 shall be fueled solely with pipeline quality natural gas or with synthetic gas with a carbon content per million Btu no greater than pipeline-quality natural gas. Any reciprocating engines constructed as part of Unit 2 shall be fueled solely with pipeline quality natural gas or with synthetic gas with a carbon content per million Btu no greater than pipeline-quality natural gas, except that distillate fuel may be used for micro-pilot systems. [Amendment No. 7]

(9) With respect to incremental capacity and fuel consumption increases for which the Certificate Holder has not previously complied with the carbon dioxide standard, the Certificate Holder shall comply substantially with Conditions D.15(1) through D.15(8) in lieu of the Council's requiring an amendment, provided that:

(a) The Council determines, pursuant OAR 345-027-0050, that the Certificate Holder does not otherwise require an amendment, and further provided that:

(b) The Certificate Holder shall meet the appropriate carbon dioxide emissions standard and monetary offset rate in effect at the time the Council makes its determination pursuant to OAR 345-027-0050.

(10) Notwithstanding Conditions D.15(1) through d.15(9), if the Certificate Holder begins construction of the Port Westward to BPA Allston Substation Transmission Line, but no other part of the energy facility or other related or supporting facilities, the Certificate Holder shall not be required to comply with Conditions D.15(1) through D.15(9). The Certificate Holder shall comply with Conditions D.15(1) through D.15(9) in connection with construction of any part

1 of the energy facility or related or supporting facilities other than the Port
2 Westward to BPA Allston Substation Transmission Line.

- 3
4 (11) If the Certificate Holder begins construction of Phase 1, but not Phase 2, the
5 Certificate Holder shall comply with Conditions D.15(1) through D.15(9) for
6 Phase 1. If the Certificate Holder later begins construction of Phase 2, the
7 Certificate Holder shall comply with Conditions D.15(1) through D.15(9) for
8 Phase 2. [Amendment No. 1]
9

10 **E. OTHER APPLICABLE REGULATORY REQUIREMENTS**

11
12 **E.1. REQUIREMENTS UNDER COUNCIL JURISDICTION**

13
14 **E.1.a. Noise**

- 15
16 (1) During construction of the facility, the Certificate Holder shall schedule most
17 heavy construction to occur during daylight hours. Construction work at night
18 shall be limited to work inside buildings and other structures when possible.
19
20 (2) During construction of the facility, the Certificate Holder shall require contractors
21 to equip all combustion engine-powered equipment with exhaust mufflers.
22
23 (3) During construction of the energy facility, transmission lines or other related or
24 supporting facilities, the Certificate Holder shall establish a complaint response
25 system at the construction manager's office to address noise complaints.
26
27 (4) Within six months after the start of commercial operation of the energy facility,
28 the Certificate Holder shall retain a qualified noise specialist to measure noise
29 levels associated with the energy facility operation-when environmental
30 conditions are expected to result in maximum sound propagation between the
31 source and the receivers and when the energy facility is operating in a typical
32 operations mode that produces maximum noise levels.
33 (a) The specialist shall measure noise levels at sites (1), (2), (5) and
34 (6), as described in Exhibit X of the ASC, to determine if actual
35 noise are within the levels specified in the applicable noise
36 regulations in OAR 345-035-0035(1)(b)(B)(i).
37 (b) The Certificate Holder shall report the results of the noise
38 evaluation to the Department.
39 (c) If actual noise do not comply with applicable DEQ regulations, the
40 Certificate Holder shall take those actions necessary to comply
41 with the regulations as soon as practicable.
42 (d) If initial measurements show that actual noise levels at site (5) by 7
43 dBA or more, the Certificate Holder shall measure the noise levels
44 as specified in this condition and shall repeat the process outlined
45 in subsections (a), (b), and (c) for site (5) within six months after

1 completion of the initial measurements.

2 (5) The Certificate Holder shall install silencers on short duration noise sources (e.g.
3 steam vents) from the heat recovery steam generator.
4

5 (6) The certificate holder shall confirm the PW1 noise level estimate at receiver 7
6 prior to the final design of PW2 and propose mitigation measures as necessary to
7 ensure that the total PWGP noise levels do not exceed the limits specified in
8 Table N-2 of the Final Order on Port Westward Amendment 7. [Amendment No.
9 7]

10 (7) Within six months after the start of commercial operation of PW2, the Certificate
11 Holder shall retain a qualified noise specialist to measure noise levels associated
12 with the PWGP energy facility operation (the operation of PW1 and PW2) during
13 late night hours when environmental conditions are expected to result in
14 maximum sound propagation between the source and each receiver and when the
15 entire energy facility is operating in a typical operations mode that produces
16 maximum noise levels.
17

18 (a) The specialist shall measure noise levels at sites (1), (2), (5), (6),
19 and (7), to determine if actual noise levels generated by the PWGP
20 are within the levels shown on Table N-2 of the Final Order on
21 Amendment 7. The noise levels at sites 1 and 2 shall be measured
22 when the wind is either calm or out of a northerly direction but
23 blowing no more than 10 mph. The noise levels at sites 5, 6 and 7
24 shall be measured when the wind is either calm or out of a
25 southerly direction but blowing no more than 10 mph.
26

27 (b) The Certificate Holder shall report the results of the noise
28 evaluation to the Department.
29

30 (c) If actual noise levels do not comply with applicable DEQ
31 regulations, the Certificate Holder shall take those actions
32 necessary to comply with the regulations as soon as practicable.
33

34 (d) If initial measurements at site (5) show that the hourly L_{50} noise
35 level is 48 dBA or more with the Beaver Plant in operation or 47
36 dBA or more without the Beaver Plant in operation, the Certificate
37 Holder shall repeat the process outlined in subsections (a), (b), and
38 (c) at site (5) and (7) within six months after completion of the
39 initial measurements. [Amendment No. 7]
40

41 (8) To address the concern that noise from any other noise source not associated with
42 the PWGP or Beaver Plant have contributed to the results of the compliance noise
43 measurements, the Certificate Holder may measure noise levels to determine if
44 the operation of any other source has contributed to the compliance results. The
45 Certificate Holder shall report the results of the noise evaluation to the

Department indicating any adjustments to applicable noise limits consistent with OAR 340-035-0035(1)(b)(B)(i). [Amendment No. 7]

E.1.b. Wetlands and Removal/Fill Permit

- (1) Before beginning construction of Phase 1 of the energy facility or the Port Westward to BPA Allston Substation Transmission Line, as appropriate, the Certificate Holder shall obtain a U.S. Army Corps of Engineers and Oregon Division of State Lands Joint Removal/Fill Permit substantially in the form of the Removal/Fill Permit in Attachment C; provided, that mitigation required under the Removal/Fill Permit shall allow for accommodation of Corps of Engineers mitigation requirements, subject to the concurrence of the Department, in consultation with the Division of State Lands and affected federal agencies. [Amendment No. 1]
- (2) The Certificate Holder shall comply with state laws and rules applicable to the Removal/Fill Permit that are adopted in the future to the extent that such compliance is required under the respective statutes and rules.
- (3) The Certificate Holder shall clearly stake the wetland boundary adjacent to the spoils disposal area and the wetland number 4 boundary adjacent to the construction laydown/staging areas in the vicinity of the energy facility prior to any ground disturbing activity in the spoils disposal area or in the construction laydown/staging areas in the vicinity of the energy facility, and shall maintain the staking until all ground-disturbing activities in the spoils disposal area and in the construction laydown/staging areas in the vicinity of the energy facility have been completed. The Certificate Holder shall instruct all contractors disposing of soil in the spoils disposal area and using the construction laydown/staging areas in the vicinity of the energy facility about the purpose of the staking and shall require them to avoid any impact to the wetlands. [Amendment No. 3]

E.1.c. Public Health and Safety

- (1) If local public safety authorities notify the Certificate Holder and the Department that the operation of the energy facility is contributing significantly to ground level fogging or icing along public roads and is likely to pose a significant threat to public safety, the Certificate Holder shall cooperate with local public safety authorities regarding the posting of warning signs on affected roads and the implementation of other reasonable safety measures.
- (2) The Certificate Holder shall design the transmission lines and backup electricity lines so that alternating current electric fields shall not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public. [Amendment No. 1]

- 1 (3) The Certificate Holder shall design the transmission lines and backup electricity
2 lines so that induced currents and voltage resulting from the transmission lines are
3 as low as reasonably achievable. [Amendment No. 1]
4
- 5 (4) The Certificate Holder shall develop and implement a program that provides
6 reasonable assurance that all fences, gates, cattle guards, trailers, or other objects
7 or structures of a permanent nature that could become inadvertently charged with
8 electricity are grounded or bonded throughout the life of the transmission line.
9
- 10 (5) The Certificate Holder shall restore or mitigate the reception of radio and
11 television at residences and commercial establishments in the primary reception
12 area to the level present before operation of the transmission line at no cost to
13 residents or businesses experiencing interference resulting from the transmission
14 line.
15
- 16 (6) The Certificate Holder shall design, construct and operate the transmission lines
17 and backup electricity lines in accordance with the requirements of the National
18 Electrical Safety Code. [Amendment No. 1]
19
- 20 (7) The Certificate Holder shall take reasonable steps to reduce or manage exposure
21 to electromagnetic fields (EMF), consistent with Council findings presented in the
22 "Report of EMF Committee to the Energy Facility Siting Council," March 30,
23 1993, and subsequent findings. Effective on the date of this Site Certificate, the
24 Certificate Holder shall provide information to the public, upon request, about
25 EMF levels associated with the energy facility and related transmission lines and
26 backup electricity lines. [Amendment No. 1]
27
- 28 (8) At least 30 days before beginning preparation of detailed design and
29 specifications for the electrical transmission line(s) and backup electricity line(s)
30 or the natural gas pipelines, the Certificate Holder shall consult with the Oregon
31 Public Utility Commission staff to ensure that its designs and specifications are
32 consistent with applicable codes and standards. [Amendments No. 1 & 5]
33
- 34 (9) With respect to the related or supporting natural gas pipelines, the Certificate
35 Holder shall design, construct and operate the pipeline in accordance with the
36 requirements of the U.S. Department of Transportation as set forth in Title 49,
37 Code of Federal Regulations, Part 192. [Amendment No. 5]
38

39 **E.1.d. Water Pollution Control Facilities Permit**
40

- 41 (1) Before beginning commercial operation of Phase 1 of the energy facility, the
42 Certificate Holder shall demonstrate that the DEQ has issued to the Certificate
43 Holder a Water Pollution Control Facilities Permit, substantially in the form of
44 Attachment B.1, allowing for on-site sanitary waste disposal. [Amendment No. 1]
45

- 1 (2) The Certificate Holder shall comply with state laws and rules applicable to Water
2 Pollution Control Facilities Permits that are adopted in the future to the extent that
3 such compliance is required under the respective statutes and rules.
4
5
6

7 **F. CONDITIONS REQUIRED OR RECOMMENDED BY COUNCIL RULES**
8

9 **F.1. MANDATORY CONDITIONS IN SITE CERTIFICATES**
10

11 **Amendment of Site Certificate**

- 12 (1) The Council shall not change the conditions of the Site Certificate except in
13 accordance with the applicable provisions of OAR 345, Division 27, in effect on
14 the date of the Council action.
15

16 **Legal Description**

- 17 (2) Before beginning construction of Phase 1 of the energy facility, the Certificate
18 Holder shall submit to the Department a legal description of the site, except as
19 provided in OAR 345-027-0023(6). [Amendment No. 1]
20
21 (a) The legal description of the site for purposes of beginning construction of
22 Phase 1 may exclude the 180-foot wide strip (50 feet south and 130 feet
23 north of an existing road) immediately north of Phase 1.
24
25 (b) The Certificate Holder shall notify the Department in writing if it is
26 exercising the option to exclude the 180-foot wide strip from Phase 1.
27
28 (c) If the Certificate Holder excludes the strip from the legal description
29 during Phase 1, the Certificate Holder shall submit to the Office, before
30 beginning construction of Phase 2 of the energy facility, a legal
31 description indicating whether the energy facility site for Phase 2 includes
32 the 180-foot wide strip. [Amendment No. 2]
33

34 **General Requirements**

- 35 (3) The Certificate Holder shall design, construct, operate, and retire the facility:
36
37 (a) Substantially as described in the Site Certificate;
38
39 (b) In compliance with the requirements of ORS Chapter 469, applicable
40 Council rules, and applicable state and local laws, rules and ordinances in
41 effect at the time the Council issues the Site Certificate; and,
42
43 (c) In compliance with all applicable permit requirements of other state
44 agencies.
45
46

1 **Construction Rights on Site**

2 (4) Except as necessary for the initial survey or as otherwise allowed for transmission
3 lines or pipelines in this condition, the Certificate Holder shall not begin
4 construction, as defined in OAR 345-001-0010, or create a clearing on any part of
5 the site until the Certificate Holder has construction rights on all parts of the site.
6 For the purpose of this condition, "construction rights" means the legal right to
7 engage in construction activities. For transmission lines or pipelines, if the
8 Certificate Holder does not have construction rights on all parts of the site, the
9 Certificate Holder may nevertheless begin construction or create a clearing on a
10 part of the site if:

- 11
- 12 (a) The Certificate Holder has construction rights on that part of the site; and,
- 13
- 14 (b) The Certificate Holder would construct and operate part of the facility on
15 that part of the site even if a change in the planned route of the
16 transmission line or pipeline occurs during the Certificate Holder's
17 negotiations to acquire construction rights on another part of the site.
- 18

19 For purposes of this condition, the "site" for purposes of beginning construction
20 of Phase 1 may exclude the 180-foot wide strip (50feet south and 130 feet north
21 of an existing road) immediately north of Phase 1. [Amendment No. 2]

22

23 **Beginning and Completing Construction**

24 (5) The Certificate Holder shall begin construction of the energy facility by
25 November 8, 2006. Beginning construction of the Port Westward to BPA Allston
26 Substation Transmission Line shall not satisfy this requirement. [Amendment No.
27 2]

28

- 29 (a) The Certificate Holder shall report promptly to the Department the date
30 that it began construction of the facility, as defined in OAR 345-001-0010.
31 In reporting the beginning of construction, the Certificate Holder shall
32 briefly describe all work on the site performed before beginning
33 construction, including work performed before the Council issued the Site
34 Certificate and work performed to construct the Port Westward to BPA
35 Allston Substation Transmission Line, and shall state the cost of that
36 work, pursuant to OAR 345-026-0048. If the Certificate Holder constructs
37 the energy facility in phases, the Certificate Holder shall report the
38 beginning of construction of each phase. [Amendment No. 1]
- 39

- 40 (b) If the Certificate Holder begins construction of the Port Westward to BPA
41 Allston Substation Transmission Line, as defined in OAR 345-001-0010,
42 prior to beginning construction of the energy facility, it shall promptly
43 report to the Department the date it began construction of the transmission
44 line.
- 45

1 (6) The Certificate Holder shall complete construction of the facility by May 8, 2013.
2 The completion of construction date is the day by which (1) the facility is
3 substantially complete as defined by the Certificate Holder's construction contract
4 documents; (2) acceptance testing is satisfactorily completed; and, (3) the energy
5 facility is ready to commence continuous operation consistent with the Site
6 Certificate. Completion of construction of the Port Westward to BPA Allston
7 Substation Transmission Line separately shall not satisfy this requirement.
8 [Amendments No. 2, 6 & 8]
9

10 (a) The Certificate Holder shall report promptly to the Department the date it
11 completed construction of the facility. If the Certificate Holder constructs
12 the energy facility in phases, the Certificate Holder shall report the date of
13 completion of each phase. [Amendment No. 1]
14

15 (b) If the Certificate Holder completes construction of the Port Westward to
16 BPA Allston Substation Transmission Line separately before completing
17 construction of the facility, it shall promptly report that date to the
18 Department.
19

20 (c) Separate completion of construction of Port Westward to BPA Allston
21 Substation Transmission Line shall be the date that PGE makes it
22 available to the Summit/Westward Project to transmit energy.
23
24

25 **F.2 OTHER CONDITIONS BY RULE**

26

27 **Incident Reports**

28 (1) With respect to the related or supporting natural gas pipelines, the Certificate
29 Holder shall submit to the Department copies of all incident reports required
30 under 49 CFR §192.709 that involve the pipeline.
31

32 **Rights-of-Way**

33 (2) Before beginning operation of the energy facility, the Certificate Holder shall
34 submit to the Department a legal description of the permanent right-of-way where
35 the Certificate Holder has built a pipeline or transmission line within an approved
36 corridor. The site of the pipeline or transmission line subject to the Site Certificate
37 is the area within the permanent right-of-way. However, if the Certificate Holder
38 completes construction of the Port Westward to BPA Allston Substation
39 Transmission Line before beginning construction of the energy facility, the
40 Certificate Holder shall submit to the Department a legal description of the
41 permanent right-of-way for that segment of that transmission line,
42 notwithstanding OAR 345-027-0023(6).
43

44 **Monitoring Programs**

45 (3) If the Certificate Holder becomes aware of a significant environmental change or
46 impact attributable to the facility, the Certificate Holder shall, as soon as possible,

1 submit a written report to the Department describing the impact on the facility and
2 its ability to comply with any affected Site Certificate conditions.

3 4 **Compliance Plans**

- 5 (4) Before beginning construction of the facility, the Certificate Holder shall
6 implement a plan that verifies compliance with all Site Certificate terms and
7 conditions and applicable statutes and rules. The Certificate Holder shall submit a
8 copy of the plan to the Department. The Certificate Holder shall document the
9 compliance plan and maintain it for inspection by the Department or the Council.
10 However, if the Certificate Holder begins construction of the Port Westward to
11 BPA Allston Substation Transmission Line before beginning construction of the
12 energy facility, the applicable compliance plan shall relate to that phase of
13 construction.

14 15 **Reporting**

- 16 (5) Within six months after beginning any construction, and every six months
17 thereafter during construction of the energy facility and related or supporting
18 facilities, the Certificate Holder shall submit a semi-annual construction progress
19 report to the Council. In each construction progress report, the Certificate Holder
20 shall describe any significant changes to major milestones for construction. When
21 the reporting date coincides, the Certificate Holder may include the construction
22 progress report within the annual report described in Condition F.2(6).
23
24 (6) The Certificate Holder shall, within 120 days after the end of each calendar year
25 after beginning construction, submit an annual report to the Council that addresses
26 the subjects listed in OAR 345-026-0080(2). The Council secretary and the
27 Certificate Holder may, by mutual agreement, change the reporting date.
28
29 (7) To the extent that information required by OAR 345-026-0080(2) is contained in
30 reports the Certificate Holder submits to other state, federal or local agencies, the
31 Certificate Holder may submit excerpts from such other reports. The Council
32 reserves the right to request full copies of such excerpted reports.

33 34 **Schedule Modification**

- 35 (8) The Certificate Holder shall promptly notify the Department of any changes in
36 major milestones for construction, decommissioning, operation, or retirement
37 schedules. Major milestones are those identified by the Certificate Holder in its
38 construction, retirement or decommissioning plans.

39 40 **Correspondence with Other State or Federal Agencies**

- 41 (9) The Certificate Holder and the Department shall exchange copies of all
42 correspondence or summaries of correspondence related to compliance with
43 statutes, rules and local ordinances on which the Council determined compliance,
44 except for material withheld from public disclosure under state or federal law or
45 under Council rules. The Certificate Holder may submit abstracts of reports in
46 place of full reports; however, the Certificate Holder shall provide full copies of

1 abstracted reports and any summarized correspondence at the request of the
2 Department.
3

4 **Notification of Incidents**

5 (10) The Certificate Holder shall notify the Department within 72 hours of any
6 occurrence involving the facility if:

7
8 (a) There is an attempt by anyone to interfere with its safe operation;
9

10 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a
11 human-caused event such as a fire or explosion affects or threatens to
12 affect the public health and safety or the environment; or,
13

14 (c) There is any fatal injury at the facility.
15
16

17 **G. GENERAL CONDITIONS**

18
19 (1) The general arrangement of the Port Westward Generating Project shall be
20 substantially as shown in the ASC.
21

22 (2) The Certificate Holder shall ensure that related or supporting facilities are
23 constructed in the corridors described in this Order and as shown in ASC and in
24 the manner described in this Order and the ASC.
25

26 (3) During construction and operation of the energy facility, the Certificate Holder
27 shall house the combustion turbine in an enclosure that provides thermal
28 insulation, acoustical attenuation, and fire extinguishing media containment and
29 that would allow access for routine inspection and maintenance.
30

31 **Successors and Assigns**

32 (4) Before any transfer of ownership of the facility or ownership of the Certificate
33 Holder, the Certificate Holder shall inform the Department of the proposed new
34 owners. The requirements OAR 345-027-0100 shall apply to any transfer of
35 ownership that requires a transfer of the Site Certificate.
36

37 **Severability and Construction**

38 (5) If any provision of this Site Certificate is declared by a court to be illegal or in
39 conflict with any law, the validity of the remaining terms and conditions shall not
40 be affected, and the rights and obligations of the parties shall be construed and
41 enforced as if the Site Certificate did not contain the particular provision held to
42 be invalid. In the event of a conflict between the conditions contained in the Site
43 Certificate and the Council's Order, the conditions contained in this Site
44 Certificate shall control.
45
46

1 **Governing Law and Forum**

2 (6) This Site Certificate shall be governed by the laws of the State of Oregon.

3
4 (7) Any litigation or arbitration arising out of this agreement shall be conducted in an
5 appropriate forum in Oregon.

6
7 IN WITNESS WHEREOF, this Site Certificate has been executed by the State of
8 Oregon, acting by and through its Energy Facility Siting Council, and Portland General
9 Electric Company.

10
11 ENERGY FACILITY SITING COUNCIL

12
13
14 By: W. Bryan Wolfe 8-19-11
15 W. Bryan Wolfe, Chair Date

16
17
18
19 PORTLAND GENERAL ELECTRIC COMPANY

20
21
22 By: Stephen M. Quenning 09/28/11 (LM)
23 Date

24
25
26 ATTACHMENT A MEMORANDUM OF UNDERSTANDING: MONETARY PATH
27 PAYMENT REQUIREMENT

28 ATTACHMENT B WATER POLLUTION CONTROL FACILITIES PERMIT (B.1)
29 AND ANALYSIS (B.2)

30 ATTACHMENT C REMOVAL/FILL PERMIT

31
32 ATTACHMENT D PGE REQUEST FOR AMENDMENT 7, REVISED EXHIBIT
33 P.8.1 (AS TRANSMITTED IN NOVEMBER 19, 2009 LETTER RICK TETZLOFF TO ADAM BLESS
34 "PORT WESTWARD GENERATING PROJECT – REVISIONS TO REQUEST TO AMEND SITE
35 CERTIFICATE (AMENDMENT 7) TO ADDRESS ODFW COMMENTS")
36

